Permit Conditions
Pinnacle West Energy Corporation
Redhawk Generating Facility
Permit Number V99-013
Minor Permit Revisions 12-20-00-02, 9-12-02-03 and 7-15-03-01
July 30, 2003

In accordance with Maricopa County Air Pollution Control Rules and Regulations (Rules), Rule 210 § 302.2, all Conditions of this Permit are federally enforceable unless they are identified as being locally enforceable only. However, any Permit Condition identified as locally enforceable only will become federally enforceable if, during the term of this Permit, the underlying requirement becomes a requirement of the Clean Air Act (CAA) or any of the CAA's applicable requirements.

All federally enforceable terms and conditions of this Permit are enforceable by the Administrator of the United States Environmental Protection Agency (Administrator or Administrator of the USEPA hereafter) and citizens under the CAA.

Any cited regulatory paragraphs or section numbers refer to the version of the regulation that was in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise.

GENERAL CONDITIONS:

1. **AIR POLLUTION PROHIBITED:** [County Rule 100 §301] [SIP Rule 3]
The Permittee shall not discharge from any source whatever into the atmosphere regulated air pollutants which exceed in quantity or concentration that specified and allowed in the County or State Implementation Plan (SIP) Rules, the Arizona Administrative Code (AAC) or the Arizona Revised Statutes (ARS), or which cause damage to property or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Maricopa County Board of Supervisors or the Director of the Arizona Department of Environmental Quality (ADEQ).

2. **CIRCUMVENTION:** [County Rule 100 §104] [40 CFR 60.12] [40 CFR 63.4(b)]
The Permittee shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of regulated air pollutants to the atmosphere, conceals or dilutes an emission which would otherwise constitute a violation of this Permit or any Rule or any emission limitation or standard. The Permittee shall not circumvent the requirements concerning dilution of regulated air pollutants by using more emission openings than is considered normal practice by the industry or activity in question.

3. **CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:**

[County Rule 100 §401]

[County Rule 210 §§301.7, 302.1 e (1), 305.1 c (1) & 305.1e]

Any application form, report, or compliance certification submitted under the County Rules or these Permit Conditions shall contain certification by a responsible official of truth, accuracy, and completeness of the application form or report as of the time of submittal. This certification and any other certification required under the County Rules or these Permit Conditions shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

4. COMPLIANCE:

A. COMPLIANCE REQUIRED:

1) The Permittee must comply with all conditions of this permit and with all applicable requirements of Arizona air quality statutes and the air quality rules. Compliance with permit terms and conditions does not relieve, modify, or otherwise affect the Permittee's duty to comply with all applicable requirements of Arizona air quality statutes and the Maricopa County Air Pollution Control Regulations. Any permit non-compliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. Noncompliance with any federally enforceable requirement in this Permit constitutes a violation of the Act. [This Condition is federally enforceable if the condition or requirement itself is federally enforceable and only locally enforceable if the condition or requirement itself is locally enforceable only]

[County Rule 210 §§301.8(b)4 & 302.1 h (1)]

2) The Permittee shall halt or reduce the permitted activity in order to maintain compliance with applicable requirements of Federal laws, Arizona laws, the County Rules, or other conditions of this Permit.

[County Rule 210 §302.1 h (2)]

3) For any major source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, the source shall comply with reasonably available control technology (RACT) as defined in County Rule 100.

[County Rule 210 §302.1 (h) (6)] [SIP Rule 220 §302.1]

Compliance with the RACT requirements of this Permit Condition for nitrogen oxides (NO_x) shall not be required if a waiver granted by the Administrator under Section 182 (f) of the Clean Air Act is in effect.

B. COMPLIANCE CERTIFICATION REQUIREMENTS:

[County Rule 210 §305.1 d]

The Permittee shall file a semiannual compliance certification with the Control Officer and also with the Administrator of the USEPA. The report shall certify compliance with the terms and conditions contained in this Permit, including emission limitations, standards, or work practices. The certification shall be on a form supplied or approved by the Control Officer and shall include each of the following:

1) The identification of each term or condition of the permit that is the basis of the certification;
2) The compliance status;
3) Whether compliance was continuous or intermittent;

4) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
5) Other facts as the Control Officer may require to determine the compliance status of the source.

The semiannual certification shall be filed at the same time as the semiannual monitoring report required by the Specific Condition section of these Permit Conditions.

C. COMPLIANCE PLAN: [County Rule 210 §305.1 g]
Based on the certified information contained in the application for this Permit, the facility is in compliance with all applicable requirements in effect as of the release date of the proposed conditions for this Permit. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis. [This Condition is federally enforceable if the applicable requirement itself is federally enforceable and only locally enforceable if the applicable requirement itself is locally enforceable only]

5. CONFIDENTIALITY CLAIMS: [County Rule 100 §402] [County Rule 200 §411]

Any records, reports or information obtained from the Permittee under the County Rules or this Permit shall be available to the public, unless the Permittee files a claim of confidentiality in accordance with ARS §49-487(c) which:

A. precisely identifies the information in the permit(s), records, or reports which is considered confidential, and
B. provides sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.
The claim of confidentiality is subject to the determination by the Control Officer as to whether the claim satisfies the claim for trade secrets.

A claim of confidentiality shall not excuse the Permittee from providing any and all information required or requested by the Control Officer and shall not be a defense for failure to provide such information.

If the Permittee submits information with an application under a claim of confidentiality pursuant to ARS 49-487 and County Rule 200, the Permittee shall submit a copy of such information directly to the Administrator of the USEPA.

[County Rule 210 §301.5]

6. CONTINGENT REQUIREMENTS:
NOTE: This Permit Condition covers activities and processes addressed by the CAA which may or may not be present at the facility. This condition is intended to meet the requirements of both Section 504(a) of the 1990 Amendments to the CAA, which requires that Title V permits contain conditions necessary to assure compliance with applicable requirements of the Act as well as the Acid Rain provisions required to be in all Title V permits.

A. ACID RAIN: [County Rule 210 §§302.1b(2) & 302.1f][County Rule 371 §301]

1). Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated pursuant to Title IV of the CAA and incorporated pursuant to County Rule 371, both provisions shall be incorporated into this Permit and shall be enforceable by the Administrator.

2) The Permittee shall not allow emissions exceeding any allowances that the source lawfully holds pursuant to Title IV of the CAA or the regulations promulgated thereunder and incorporated pursuant to County Rule 371.

a) No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program and incorporated pursuant to County Rule 371, provided that such increases do not require a permit revision pursuant to any other applicable requirement.

b) No limit is placed on the number of allowances held by the Permittee. The Permittee may not, however, use allowances as a defense to non-compliance with any other applicable requirement.

c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated pursuant to Title IV of the CAA.

d) All of the following prohibitions apply to any unit subject to the provisions of Title IV of the CAA and incorporated into this Permit pursuant to County Rule 371:

(1) Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners or operators of the unit or the designated representative of the owners or operators.

(2) Exceedances of applicable emission rates.

(3) The use of any allowance prior to the year for which it was allocated.

(4) Violation of any other provision of the permit.

B. ASBESTOS:

[40 CFR 61, Subpart M] [County Rule 370 §301.8 - locally enforceable only]

The Permittee shall comply with the applicable requirements of Sections 61.145 through 61.147 and 61.150 of the National Emission Standard for Asbestos and County Rule 370 for all demolition and renovation projects.

C. RISK MANAGEMENT PLAN (RMP): [40 CFR 68]

Should this stationary source, as defined in 40 CFR 68.3, be subject to the accidental release prevention regulations in 40 CFR Part 68, then the Permittee shall submit an RMP by the date specified in 40 CFR Section 68.10 and shall certify compliance with the requirements of 40 CFR Part 68 as part of the annual compliance certification as required by 40 CFR Part 70. However, neither the RMP nor modifications to the RMP shall be considered to be a part of this Permit.

D. STRATOSPHERIC OZONE PROTECTION: [40 CFR 82 Subparts E, F, and G]

If applicable, the Permittee shall follow the requirements of 40CFR 82.106 through 82.124 with respect to the labeling of products using ozone depleting substances.

If applicable, the Permittee shall comply with all of the following requirements with respect to recycling and emissions reductions:

1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

2) Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158.
3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by a certified technician pursuant to 40 CFR 82.161.

If applicable, the Permittee shall follow the requirements of 40CFR Subpart G, including all Appendices, with respect to the safe alternatives policy on the acceptability of substitutes for ozone-depleting compounds.

7. DUTY TO SUPPLEMENT OR CORRECT APPLICATION: [County Rule 210 §301.6]
If the Permittee fails to submit any relevant facts or has submitted incorrect information in a permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

8. EMERGENCY EPISODES: [County Rule 600 §302] [SIP Rule 72.A.5 e, f & g]
If an air pollution alert, warning, or emergency has been declared, the Permittee shall comply with any applicable requirements of County Rule 600 §302

9. EMERGENCY PROVISIONS: [County Rule 130 §§201 & 402]
An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that cause the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

An emergency constitutes an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the requirements of this Permit Condition are met.

The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
A. An emergency occurred and that the Permittee can identify the cause or causes of the emergency;
B. At the time of the emergency, the permitted source was being properly operated;
C. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in this permit; and
D. The Permittee as soon as possible telephoned the Control Officer, giving notice of the emergency, and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission

limitations were exceeded due to the emergency. This notice fulfills the requirement of County Rule 210. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

This provision is in addition to any emergency or upset provision contained in any applicable requirement.

10. EXCESS EMISSIONS: [County Rule 140 §§401 & 402- locally enforceable only]

NOTES: This Permit Condition is based on a County Rule which has not been adopted into the State Implementation Plan and is therefore applicable only at the County level.
There are reporting requirements associated with excess emissions. These requirements are contained in the Reporting section of the General Permit Conditions in a subparagraph called Excess Emissions. The definition of excess emissions can be found in County Rule 100 §200.

A. Emissions in excess of an applicable emission limitation contained in the Rules or in these Permit Conditions shall constitute a violation. For all situations that constitute an emergency as described in County Rule 130 §201, the requirements contained in County Rule 130 shall apply. In all other circumstances, it shall be an affirmative defense if the Permittee has complied with the reporting requirements of County Rule 130 §500 and these Permit Conditions in a timely manner and has demonstrated all of the following:
   1) The excess emissions resulted from a sudden and unavoidable breakdown of the process equipment or the air pollution control equipment, resulted from unavoidable conditions during startup or shutdown, resulted from unavoidable conditions during an upset of operations, or greater or more extended excess emissions would result unless scheduled maintenance is performed;
   2) The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
   3) Where repairs were required, such repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded and off-shift labor and overtime were utilized where practical to insure that such repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that such measures were impractical;
   4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
   5) All reasonable steps were taken to minimize the impact of the excess emissions on potential violations of ambient air quality standards;
   6) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
   7) During the period of excess emissions, there were no measured violations of the ambient air quality standards established in County Rule 510 which could be attributed to the emitting source.

B. It shall be the burden of the Permittee to demonstrate, through submission of the data and information required by this Permit Condition that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of excess emissions, and that the excess emissions did not result from improper design, operation, or maintenance.

11. FEES: [County Rule 200 §409} {County Rule 210 §§302.1I & §401]

The Permittee shall pay fees to the Control Officer pursuant to ARS 49-480(D) and County Rule 280.

12. MODELING: [County Rule 200 §407] [locally enforceable only]

Where the Control Officer requires the Permittee to perform air quality impact modeling, the Permittee shall perform the modeling in a manner consistent with the "Guideline on Air Quality Models (Revised)" (EPA-450/2-78-027R, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, July 1986) and "Supplement B to the Guideline on Air Quality Models" (U.S. Environmental Protection Agency, September 1990). Both documents shall be referred to hereinafter as "Guideline", and are adopted by reference. Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted if found to be acceptable to the Control Officer.

13. MONITORING / TESTING:

A. The Permittee shall monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to the facility if required to do so by the Control Officer, either by Permit or by order in accordance with County Rule 200 §309.

[County Rule 200 §309] [SIP Rule 41]

B. Except as otherwise specified in these Permit Conditions or by the Control Officer, the Permittee shall conduct required testing used to determine compliance with standards or permit conditions established pursuant to the County or SIP Rules or these Permit Conditions in accordance with County Rule 270 and the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions or other approved USEPA test methods.

[County Rule 200 §408] [County Rule 270 §§300 & 400] [SIP Rule 27]

C. The Permittee may use equivalent test methods and procedures in lieu of those described in this paragraph if approved by the Control Officer.

[County Rule 270 §402]

D. The owner or operator of a permitted source shall provide, or cause to be provided, performance testing facilities as follows:

1) Sampling ports adequate for test methods applicable to such source.
2) Safe sampling platform(s).
3) Safe access to sampling platforms(s).
4) Utilities for sampling and testing equipment.

[County Rule 270 §405] [SIP Rule 42]

14. PERMITS:

A. BASIC: [County Rule 210 §302.1h(3)]

This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

B. DUST CONTROL PLAN REQUIREMENTS:

1) The following describe the permit applications with which a Dust Control Plan must be submitted. *(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)*

a) If the Permittee is required to obtain an Earthmoving Permit under Regulation II (Permits And Fees) of the County Rules, then the Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any dust generating operation.

b) The Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any routine dust generating operation.

[County Rule 310 §303.3] [SIP Rule 310 §303.3]

2) A Dust Control Plan shall not be required to play on a ballfield and/or for landscape maintenance. For the purpose of this Permit Condition, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities.

[County Rule 200 §305] [County Rule 310 §303.4] [SIP Rule 310 §303.4]

3) Any Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of Rule 310.

[County Rule 310 §304] [SIP Rule 310 §304]

4) Compliance with this section does not effect a source's responsibility to comply with the other standards of Rule 310 and these Permit Conditions. Failure to comply with the provisions of an approved Dust Control Plan or the work practice standards contained in Rule 310 §308 is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of Rule 310 at all times. In addition, if the Permittee has an approved Dust Control Plan, the Permittee is still subject to all of the requirements of Rule 310, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 §303] [SIP Rule 310 §303]

5) The Permittee shall make revisions to any required Dust Control Plan when notified in writing by the Control Officer that implementation of the existing dust control plan allowed an exceedance of the standards established in Rule 310 §§301 or 302. The revised Dust Control Plan shall be submitted to the Control Officer within 3 working days of receiving the notice. During the time when the Dust Control Plan is being revised, the Permittee must still comply with the requirements of this Permit and Rule 310.

[County Rule 310 §305] [SIP Rule 310 §305]

C. PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS:

[County Rule 200 §§301 & 308]
[County Rule 210 §§301.4a, b, & c, and 400]

1) The Permittee shall comply with the Administrative Requirements of Section 400 of County Rule 210 for all changes, amendments and revisions at the facility for any source subject to regulation under County Rule 200, shall comply with all required time frames, and shall obtain any required preapproval from the Control Officer before making changes. All applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision including information listed in County Rule 200 §308 and County Rule 210 §§301 & 302.3.

2) The Permittee shall supply a complete copy of each application for a permit, a minor permit revision, or a significant permit revision directly to the Administrator of the USEPA. The Control Officer may require the application information to be submitted in a computer-readable format compatible with the Administrator's national database management system.

[County Rule 210 §§303.1a, 303.2, 405.4, & 406.4]

3) While processing an application, the Control Officer may require the applicant to provide additional information and may set a reasonable deadline for a response.

[County Rule 210 §301.4.f]

4) No permit revision shall be required pursuant to any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

[County Rule 210 §302.1j]

. POSTING:

1) The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.

[County Rule 200 §311] [SIP Rule 22F]

2) If a Dust Control Plan, as required by Rule 310, has been approved by the Control Officer, the Permittee shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the Dust Control Plan available on site at all times.

[County Rule 310 §401] [SIP Rule 310 §401]

E. PROHIBITION ON PERMIT MODIFICATION: [County Rule 200 §310]
The Permittee shall not willfully deface, alter, forge, counterfeit, or falsify this permit.

F. RENEWAL: [County Rule 210 §§ 301 & 302]

1) The Permittee shall submit an application for the renewal of this Permit in a timely and complete manner. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. A complete application shall contain all of the information required by the County Rules including Rule 200 §308 and Rule 210 §§301 & 302.3.
[County Rule 210 §§301.2(a), and 301.4a, b, c, d, h & 302.3]

2) The Permittee shall file all permit applications in the manner and form prescribed by the Control Officer. To apply for a permit renewal, the Permittee shall complete the "Standard Permit Application Form" and shall supply all information, including the information required by the "Filing Instructions" as shown in Appendix B of the County Rules, which is necessary to enable the Control Officer to make the determination to grant or to deny a permit which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of the CAA, ARS and County Rules.
[County Rule 200 §§308 & 309] [County Rule 210 §301.1]

3) The Control Officer may require the Permittee to provide additional information and may set a reasonable deadline for a response.
[County Rule 210 § 301.4f]

4) If the Permittee submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. This protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit, by the deadline specified by the Control Officer, any additional information identified as being needed to process the application.
[County Rule 200 §403.2] [County Rule 210 §§301.4f & 301.9]

G. REVISION / REOPENING / REVOCATION: [County Rule 210 §302.1h(3)]
This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit revision, revocation and reissuance, or termination or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

H. REVISION PURSUANT TO A FEDERAL HAZARDOUS AIR POLLUTANT STANDARD: [County Rule 210 §301.2c] [locally enforceable only]
If the Permittee becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the CAA, the Permittee shall, within 12 months of the

date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

I. REQUIREMENTS FOR A PERMIT:

1) Air Quality Permit: Except as noted pursuant to the provisions in Sections 403 and 405 of County Rule 210, no source may operate after the time that it is required to submit a timely and complete application, except in compliance with a permit issued pursuant to County Rule 210. Permit expiration terminates the Permittee's right to operate. However, if a source submits a timely and complete application, as defined in County Rule 210 §301, for permit issuance, revision, or renewal, the source's failure to have a permit is not a violation of the County Rules until the Control Officer takes final action on the application. The Source's ability to operate without a permit as set forth in this paragraph shall be in effect from the date the application is determined to be complete until the final permit is issued. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application. If a source submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the permit renewal has been issued or denied.

[County Rule 210 §301.9]

2) Earthmoving Permit:

(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)

No person shall commence any earth moving operation or any dust generating operation without meeting the requirements of and obtaining any and all Earth Moving Equipment Permits and Permits to Operate required by County Rule 200. The provisions of this section shall not apply:

a) During emergency, life threatening situations or in conjunction with any officially declared disaster or state of emergency;
b) To operations conducted by essential service utilities to provide electricity, natural gas, oil and gas transmission, cable television, telephone, water, and sewerage during service outages and emergency disruptions;
c) To non-routine or emergency maintenance of flood control channels and water retention basins.
d) To vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality and/or commercial acceptance. Such facilities and operations shall be exempted from the provisions of this section only if such testing is not feasible within enclosed facilities.

[County Rule 310 §302] [SIP Rule 310 §302]

The Permittee shall not cause, commence, suffer, allow, or engage in any earthmoving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. Permits shall not be required for earthmoving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys.

[County Rule 200 §305]

3) Burn Permit: The Permittee shall obtain a Permit To Burn from the Control Officer before conducting any open outdoor fire except for the activities listed in County Rule 314 §§302.1 and 302.2.

[County Rule 314} {[County Rule 200 §306] [SIP Rule 314]

J. RIGHTS AND PRIVILEGES: [County Rule 210 §302.1h(4)]

This Permit does not convey any property rights nor exclusive privilege of any sort.

K. SEVERABILITY: [County Rule 210 §302.1g]

The provisions of this Permit are severable, and, if any provision of this Permit is held invalid, the remainder of this Permit shall not be affected thereby.

L. SCOPE:

The issuance of any permit or permit revision shall not relieve the Permittee from compliance with any Federal laws, Arizona laws, or the County or SIP Rules, nor does any other law, regulation or permit relieve the Permittee from obtaining a permit or permit revision required under the County Rules.

[County Rule 200 §308] [SIP Rule 22H]

Nothing in this permit shall alter or affect the following:

1) The provisions of Section 303 of the Act, including the authority of the Administrator pursuant to that section.
2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.
3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act.
4) The ability of the Administrator of the USEPA or of the Control Officer to obtain information from the Permittee pursuant to Section 114 of the Act, or any provision of State law.
5) The authority of the Control Officer to require compliance with new applicable requirements adopted after the permit is issued. [locally enforceable only]

[County Rule 210 §407.2]

M. TERM OF PERMIT: [County Rule 210 §§302.1a & 402]

This Permit shall remain in effect for no more than 5 years from the date of issuance.

N. TRANSFER: [County Rule 200 §404]

Except as provided in ARS 49-429 and County Rule 200, this permit may be transferred to another person if the Permittee gives notice to the Control Officer in writing at least 30 days before the proposed transfer and complies with the permit transfer requirements of County Rule 200 and the administrative permit amendment procedures pursuant to County Rule 210.

15. RECORDKEEPING:

A. RECORDS REQUIRED:

[County Rule 100 §501] [County Rule 310 §502] [SIP Rule 40 A]

The Permittee shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced, and any other records relating to the emission of air contaminants which may be requested by the Control Officer.

B. RETENTION OF RECORDS:

Unless a longer time frame is specified by the Rules or these Permit Conditions, the Permittee shall retain information and records required by either the Control Officer or these Permit Conditions as well as copies of summarizing reports recorded by the Permittee and submitted to the Control Officer for 5 years after the date on which the pertinent report is submitted.

[County Rule 100 §504] [SIP Rule 40 C]

The Permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or physical records for continuous monitoring instrumentation, and copies of all reports required by the permit.

[County Rule 210 §§302.1 d (2) and 305.1 b (2)]

C. MONITORING RECORDS: [County Rule 210 §§302.1d(1) & 305.1b(1)]

Records of any monitoring required by this Permit shall include the following:

1) The date, place as defined in the permit, and time of sampling or measurements;
2) The date(s) analyses were performed;
3) The company or entity that performed the analyses;
4) The analytical techniques or methods used;
5) The results of such analyses; and
6) The operating conditions as existing at the time of sampling or measurement.

D. RIGHT OF INSPECTION OF RECORDS:

[County Rule 100 §106] [SIP Rule 40 D]

When the Control Officer has reasonable cause to believe that the Permittee has violated or is in violation of any provision of County Rule 100 or any County Rule adopted under County Rule 100, or any requirement of this permit, the Control Officer may request, in writing, that the Permittee produce all existing books, records, and other documents evidencing tests, inspections, or studies which may reasonably relate to compliance or noncompliance with County Rules adopted under County Rule 100. No person shall fail nor refuse to produce all existing documents required in such written request by the Control Officer.

16. REPORTING:

NOTE: See the Permit Condition titled Certification Of Truth, Accuracy and Completeness in conjunction with reporting requirements.

A. ANNUAL EMISSION INVENTORY REPORT:

[County Rule 100 §505] [SIP Rule 40 B]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30, or 90 days after the Control Officer makes the inventory form(s) available, whichever occurs later.

The annual emissions inventory report shall be in the format provided by the Control Officer.

The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under ARS §49-476.01, ARS §49-480.03 and ARS §49-480.04.

B. DATA REPORTING: [County Rule 100 §502]

When requested by the Control Officer, the Permittee shall furnish to the Maricopa County Air Quality Division (Division hereafter) information to locate and classify air contaminant sources according to type, level, duration, frequency, and other characteristics of emissions and such other information as may be necessary. This information shall be sufficient to evaluate the effect on air quality and compliance with the County or SIP Rules. The Permittee may subsequently be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.

C. DEVIATION REPORTING:

[County Rule 210 §§302.1 e & 305.1 c]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions. Unless specified otherwise elsewhere in these Permit Conditions, an upset for the purposes of this Permit Condition shall be defined as the operation of any process, equipment or air pollution control device outside of either its normal design criteria or operating conditions specified in this Permit and which results in an exceedance of any applicable emission limitation or standard. The Permittee shall submit the report to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days from the knowledge of the deviation. The report shall contain a description of the probable cause of such deviations and any corrective actions or preventive measures taken. In addition, the Permittee shall report within a reasonable time of any long-term corrective actions or preventative actions taken as the result of any deviations from permit requirements.

All instances of deviations from the requirements of this Permit shall also be clearly identified in the semiannual monitoring reports required in the Specific Condition section of these Permit Conditions.

D. EMERGENCY REPORTING: [County Rule 130 §402.4]

(NOTE: Emergency Reporting is one of the special requirements which must be met by a Permittee wishing to claim an affirmative defense under the emergency provisions of County Rule 130. These provisions are listed earlier in these General Conditions in the section titled "Emergency Provisions". Since it is a form of deviation reporting, the filing of an emergency report also satisfies the requirement of County Rule 210 to file a deviation report.)

The Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency, and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

E. EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT:

[County Rule 100 §503]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall provide the Control Officer with an emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions of NO_x and volatile organic compounds (VOC) from that source. At a minimum, the emission statement shall contain all information contained in the "Guidance on Emission Statements" document as described in the USEPA's Aerometric Information Retrieval System (AIRS) Fixed Format Report (AFP 644). The statement shall contain emissions for the time period specified by the Control Officer. Statements shall be submitted annually.

F. EXCESS EMISSIONS REPORTING:

[County Rule 140 §500] [locally enforceable only]

(NOTE: This reporting subsection is associated with the requirements listed earlier in these General Conditions in the section titled "Excess Emissions".)

1) Excess emissions shall be reported as follows:
   a) The Permittee shall report to the Control Officer any emissions in excess of the limits established either by the Rules or these Permit Conditions. The report shall be in two parts as specified below:
      (1) Notification by telephone or facsimile within 24 hours of the time when the owner or operator first learned of the occurrence of excess emissions including all available information from paragraph F. 1) b) below of this Permit Condition.
      (2) Excess emissions report containing all the information described in paragraph F. 1) b) below of this Permit Condition within 72 hours of the telephone notification pursuant to paragraph F. 1) a) (1) above of this Permit Condition.
   b) The excess emissions report shall contain the following information:
      (1) The identity of each stack or other emission point where the excess emissions occurred.
      (2) The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.
      (3) The time and duration or expected duration of the excess emissions.
      (4) The identity of the equipment from which the excess emissions emanated.

(5) The nature and cause of such emissions.
(6) The steps taken, if the excess emissions were the result of a malfunction, to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction.
(7) The steps that were or are being taken to limit the excess emissions. If this Permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with the Permit procedures.

2) In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the Permittee provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification that meets the criteria of Section F. 1) of this Condition.

G. OTHER REPORTING: [County Rule 210 §302.1 h (5)]

The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing this permit, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by this Permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records directly to the Administrator along with a claim of confidentiality as covered elsewhere in these Permit Conditions.

17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:

[County Rule 100 §105] [[County Rule 210 §305.1f] [SIP Rule 43]

The Control Officer, during reasonable hours, for the purpose of enforcing and administering County Rules or any provision of ARS relating to the emission or control prescribed pursuant thereto, may enter every building, premises, or other place, except the interior of structures used as private residences. Every person is guilty of a petty offense under ARS §49-488 who in any way denies, obstructs or hampers such entrance or inspection that is lawfully authorized by warrant.

The Permittee shall allow the Control Officer or his authorized representative, upon presentation of proper credentials and other documents as may be required by law, to:

A. Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records are required to be kept pursuant to the conditions of the permit;
B. Have access to and copy, at reasonable times, any records that are required to be kept pursuant to the conditions of the permit;
C. Inspect, at reasonable times, any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;
D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

E. To record any inspection by use of written, electronic, magnetic, and photographic media.

[Locally enforceable only]

SPECIFIC CONDITIONS:

Definitions

For the purpose of these permit conditions, the following definitions shall apply:

The nameplate capacities for the various emission units are:

a) Each turbine – 1,808 MMBtu/hr heat input and 175.2 Mw turbine output at 73 degrees F
b) Duct Burners – each burner – 125 MMBtu/hr heat input
c) Each Cooling Tower – 160,000 gpm capacity

1) "TPY" shall be defined as "tons emitted in any rolling 12-month period, with a new 12-month period beginning on the first day of each calendar month."
2) Combined cycle systems shall consist of one or more combustion turbine(s) with its associated heat recovery steam generator (HRSG), duct burners, post-combustion emissions controls, and stack.
3) "Normal operations" shall be defined as operation at loads greater than the minimum normal operating load of 105 MW (60% of the nameplate CT generating capacity), or alternatively, upon initiation of dry, low-NOx operation as indicated by receipt of a Mode 6 signal from the turbine control system.
4) "O&M Plan" shall be defined as the Operations and Maintenance Plan most recently approved in writing by the Control Officer .
5) Startup and shutdown (SU/SD) are defined as any period of operation when the combustion turbine is operating at equal to or less than 105 MW (60% of its rated nameplate generating capacity), excluding periods of malfunction. As an alternative, the unit can be onsidered in SU/SD when fuel is being combusted and the turbine control system is not in Mode 6 (dry, low-NOx operation mode), excluding periods of malfunction.
6) "Malfunctions" shall be defined as any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal and usual manner, but does not include failures caused by poor maintenance, careless operation, or any other condition that could have been prevented by the exercise of reasonable care.
7) "Method" references to 40 CFR Part 60 Appendix A emissions testing methods.

18. ALLOWABLE EMISSION LIMITATIONS

Unless otherwise stated, the PM-10 emission limits include both solid (filterable) and condensable particulate matter.

The allowable emission limits of these Permit Conditions are based upon the facility as currently permitted. They do not provide for facility changes or changes in the method of operation that would otherwise trigger applicable requirements including New Source Review, Prevention of Significant Deterioration or Best Available Control Technology.

A. Facility - Wide Requirements:

1) Facility Equipment

The major emitting equipment to be constructed at the facility is described in Appendix A. The Permittee shall not deviate from the equipment described in Appendix A.

[County Rule 240, §301]

2) Facility Emission Limits

In addition to emission limits expressed elsewhere in this Permit, the Permittee shall not cause, allow, or permit emissions to exceed the hourly and rolling average limits shown in Tables 1, 2, and 3.

Table 1
Rolling 12-month Average Limits

	Rolling 12-month Average Emission Limits (tons per year)				
Parameter	NO_x	CO	SO_2	VOC	PM_{10} [1]
Annual Emission Limits	1452	3799	38.9	242	733

Footnote 1: This value represents PM_{10} emissions. For emissions from the cooling towers, total PM equals twice the PM_{10} value. For emissions from combustion equipment, PM equals PM_{10}

Short-term Emission Limits – Normal Operation

The maximum short-term emissions from permitted combustion turbines/ system during normal operation, excluding periods of startup and shutdown, malfunctions, and equipment shakedown prior to commercial operations, shall not exceed the allowable emissions listed in Table 2. [Note: The regulatory basis for these emission limits are BACT requirements for NO_x, CO, VOC, and PM_{10}, and air quality modeling compliance for SO_2.]

The maximum short-term emissions of ammonia from permitted combustion turbines/duct burners shall be limited to 10 ppmv during normal operations, excluding periods of startup and shutdown, malfunctions, and equipment shakedown prior to commercial operations. The maximum equivalent anhydrous ammonia injection rate shall be limited to 99.2 lb/hr averaged over 24 hours during normal operations.

Table 2
Maximum Short-term Allowable Emissions during normal operations for each Combustion Turbine/Duct Burner

	NO_x	NH3	CO	VOC	PM_{10}	Filterable PM_{10} [6]	SO_2

Averaging Interval	3-hour	24-hour	3-hour	3-hour	3-hour	3-hour	3-hour
Mass Emission Limit (lb/hr)	21.7 [1] 23.1[2]	NA	45.0/88.0 [1] 55.0/98.0[2]	5.0 [1] 6.2 [2]	19.7 [1] 21.0 [2]	13.0 [1] 13.8 [2]	1.16 [1] 1.24 [2]
Secondary Emission Limit	3.0 [4] 0.2 lbs/MMBtu [3]	10.0	10/20 [1] 14/23 [2]	0.0028 [1] 0.0032 [2]	0.0101[1] 0.0101 [2]	0.0067 [1] 0.0067 [2]	NA
Secondary Emission Limit Units	ppmv [5]	ppmv [5]	ppmv [5]	lb/MMBtu	lb/MMBtu	lb/MMBtu	NA

Footnote 1: These limits are without duct burner firing (and for CO, without and with power augmentation).

Footnote 2: These limits are with duct burner firing (and for CO, without and with power augmentation).

Footnote 3: This limit is for duct burner firing only

Footnote 4: Final concentration limit may be lower. Refer to Condition 19.E.1.

Footnote 5: All ppmv concentrations are corrected to 15% oxygen on a dry basis.

Footnote 6: Filterable PM10 refers to PM measured by Test Methods 5 or 201A.

Short-term Emission Limits – Startup/Shutdown

[County Rule 240 §305 and §308]

The maximum hourly emissions from the combustion turbines system during periods of startup and shutdown, and excluding periods of malfunctions, shall not exceed the values shown in Table 3. These values shall be revised in the application for renewal of this permit if, after three years of operation, the monitoring required during startup and shutdown under Special Condition 20, or the performance testing required under Special Condition 22, demonstrates that the maximum hourly emissions for CO, NOx, VOCs, or PM10 in the table can be lowered and still achieve continual compliance.

Table 3

Maximum Emissions Per Turbine During Startup/Shutdown (lb/hr)

Parameter	NO_x	CO	VOC	SO_2	PM_{10}	Filterable PM_{10}
SU/SD Emission Limits	338	870	29	1.05	18.3	12.1

3) Offsite Sulfur Oxides limits:

The Permittee shall not emit into the ambient air any sulfur oxide in such manner and amounts as to result in ground level concentrations at any place beyond the premises on which the source is located exceeding the limits shown in Table 4:

Table 4
Sulfur Dioxide Ambient Concentration Limits

Concentration of Sulfur Dioxide (ug/cubic m)	Averaging Time (hours)
850	1
250	24
120	72

[SIP Rule 32 F]

4) HAP Emission Limits During Normal Operations [Rule 210 Section 302.1(o)]

The Permittee shall not cause, allow or permit the emission of Federally listed Hazardous Air Pollutants (HAPs) in excess of 23.5 tpy for total HAPs and 9.9 tpy for any single HAP.

5) Particulate Matter Limits (General):

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel from any combustion equipment in excess of the amounts calculated by the following equation:

$E = 1.02\ Q^{0.769}$ where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.
Q= the heat input in million Btu per hour.
[ARS §49-106, State Rule R18-2-719.c.1(R9-3-519.c.1), SIP Rule 31(H)]

6) Opacity Limits

The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds, in excess of 20 percent opacity.

[County Rule 300 §§ 301, 302.1,2]

Except as otherwise provided in Regulation I, Rule 4, Exceptions, the opacity of any plume or effluent from any source of emissions, other than uncombined water, shall not be greater than 40 percent opacity as determined by Reference Method 9 in the Arizona Testing Manual.

[SIP Rule 30]

19. OPERATIONAL REQUIREMENTS

A. Facility – Wide Operational Requirements:

1) The Permittee shall combust only pipeline quality natural gas with a sulfur content of 0.0075 grains/dscf or less in all devices except the diesel fire pump engine, which shall burn only commercially available diesel fuel with sulfur content of 0.05 percent by weight or less.

[County Rule 240.308.1a] [County Rule 320 § 306.4]

2) The Permittee shall not emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

[County Rule 320 § 300] [locally enforceable only]

3) Materials including, but not limited to, solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.

[County Rule 320 § 302] [locally enforceable only]

4) Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet to a degree that will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property.

[County Rule 320 § 303] [locally enforceable only]

B. Operational Requirements for the Combined Cycle Systems:

The startup/shutdown operations at each combustion turbine system shall be limited to no more than 10 hours of SU/SD per day and 1277.5 hours of SU/SD per year of operation. No more than 2 combustion turbine units may be in startup or shutdown mode concurrently.

[County Rule 240, §308]

C. Operational Requirements for the Cooling Tower:

The cooling tower shall at all times be equipped and maintained with high efficiency drift eliminators certified by the cooling tower vendor to achieve 0.0005 or less percent drift. The total dissolved solids (TDS) content of the cooling water in the cooling tower shall not contain more than 20,000 ppm TDS.

[County Rule 240, §308]

D. Operational Requirements for the Diesel Fire Pump Engine:

The Permittee shall operate the Emergency Diesel Fire Water Pump Engine only for emergency conditions or routine maintenance checks.

[County Rule 240, §308]

E. Operational Requirements for the Selective Catalytic Reduction Emission Control Systems

1) The Permittee shall install, operate, and maintain a Selective Catalytic Reduction (SCR) system as part of each Combined Cycle System. An SCR control system will be installed that is designed to achieve 2.5 ppm NOx emission level. During the first two years of commercial operation, the NOx emission limit shall be 3.0 ppm based on a 3-hour average. If, after the first two years of commercial operation, it can be shown that continual compliance can be demonstrated at levels between 2.5 and 3.0 ppm (not including startups/shutdowns and malfunctions, and considering the differences between normal operations and normal operations with duct burner firing on), then the NOx emission limit will be lowered to the demonstrated compliance levels between 2.5 and 3.0 ppm for normal operations and normal operations with duct burner firing on. To ensure that the SCR system is properly operated to achieve the design control rate of 2.5 ppm NOx during the first two years of commercial operation, a minimum ammonia injection rate will be used as stipulated in Condition 20.F and described in Appendix C of this permit.
2) The Permittee shall submit an approvable Operations and Maintenance (O&M) plan to the Department for each SCR system required by these Permit Conditions. The plans shall be in a format acceptable to the Department and shall specify the procedures used to maintain the SCR system. The O&M plan shall be submitted 180 days before the equipment covered has been started up.
3) The Permittee shall at all times comply with the currently approved version of the O&M Plan.
4) The SCR control system shall be designed so it will not inject ammonia into the SCR system when the inlet temperature to the catalyst is less than the Minimum Catalyst Temperature (to be established as part of the O&M Plans).

[County Rule 210 §302.1(c)(1)]

F. Operational Requirements for the Continuous Emissions Monitoring Systems

1) The Permittee shall install, certify, maintain, and operate a Continuous Emissions Monitoring System (CEMS) to monitor NOx, CO, either O2 or CO2 diluent gas, and fuel flow rate for each Combined Cycle System.
2) The CEMS shall meet or exceed all applicable design, installation, operational, quality assurance, and all other applicable requirements of 40 CFR Parts 60 and 75.
3) The fuel flow monitor shall meet or exceed specifications contained in the current (as of July, 2000) American Gas Association Report Number 3.
4) The Permittee shall ensure that the CEMS are in operation and monitoring unit emissions at all times that the Combined Cycle Systems combust any fuel except during periods of calibration, quality assurance, preventive maintenance, repair, backups of data from the data acquisition and handling system, or recertification. Malfunctions shall be recorded and reported as required under 40 CFR Part 60 and Part 75.
5) The Permittee shall ensure that the design, installation, operation, maintenance, O&M/QA Plan(s), and on-site spare parts inventory are sufficient to ensure that the CEMS meet the data capture requirements of Permit Condition 20.I and 40 CFR Parts 60 and 75.
6) The Permittee shall submit an approvable Operations and Maintenance (O&M) plan to the Department for each Continuous Emissions Monitoring System (CEMS) required by these Permit Conditions. The plans shall be in a format acceptable to the Department and shall specify applicable operating parameters, necessary to ensure continuous and accurate emissions monitoring.
7) The Permittee shall submit an approvable Quality Assurance Plan (QAP) to the Department for each CEMS required by these Permit Conditions. The plans shall be in a format acceptable to the Department. If the QAP plan has not been approved as part of the application for this permit, then the QAP shall be submitted within 30 days after the equipment covered has been started up. The Permittee shall at all times comply with the QAP.
8) A combined O&M Plan and Quality Assurance Plan for both CEMS may be submitted.
9) The Permittee shall at all times comply with the currently approved version of the O&M and QA Plans.
10) The design, installation, operation, maintenance, O&M Plans, QA Plans, and on-site spare parts inventory shall be sufficient to ensure that the CEMS meet the data capture requirements of Permit Condition 20.I and 40 CFR Parts 60 and 75.
11) Within 90 days of beginning of commercial operation, the Permittee shall certify the CEMS in accordance with 40 CFR Part 60 Appendix F and 40 CFR Part 75.20. Routine audits and quality control checks shall be conducted in accordance with 40 CFR Part 60 Appendix B and 40 CFR Part 75.
12) The Permittee shall ensure that all calibration gases (including zero gases) are certified and current at all times.
13) The Permittee shall re-calibrate any CEMS after any maintenance activity that could affect the system calibration and shall re-certify whenever required under 40 CFR Parts 60 and 75.
14) The Permittee shall develop and implement daily, monthly, quarterly, and annual maintenance checklists to ensure proper operation and accuracy of the CEMS. The checklists will be established as part of the O&M and QA Plans.
15) The Permittee shall maintain records of all certifications, calibrations, testing, maintenance (including completed maintenance checklists), and repairs made to the CEMS.

[County Rule 210 §302.1(c)(1)]

20. MONITORING/RECORDKEEPING REQUIREMENTS

A. The Permittee shall hourly monitor and record the hours of operation and operating mode (SU/SD, normal, power augmentation, and/or duct burner firing) of each Combined Cycle System; the Combined Cycle System exhaust temperature prior to entering the Selective Catalytic Reduction System; the amount of natural gas combusted in each of the Combustion Turbines and each of the Duct Burners, and the electrical energy output of each Combined Cycle System. The Permittee shall monthly calculate the twelve-month total hours of operation in each mode for each Combined Cycle System.

[County Rule 210]

B. The Permittee shall record the actual hours of operation and the reason for operation of the diesel fire water pump engine and the nature of the emergency or maintenance check that caused the engines to be used. The Permittee shall monthly calculate the twelve-month total hours of operation.

[County Rule 210] [locally enforceable only]

C. Within 90 days after commencement of commercial operation (i.e., "Commence commercial operation means to have begun to generate electricity for sale, including the sale of test generation" as defined by 40 CFR 72.2), a continuous emissions monitoring system (CEMS) shall be installed, certified, and operated on each permitted combustion turbine/duct burner emission unit/stack. The CEMS, at a minimum, shall consist of a NOx concentration monitor, a CO concentration monitor, and an O2 or CO2 diluent gas monitor in accordance with the applicable provisions of 40 CFR Part 75 and 40 CFR Part 60, Appendices B and F.

[County Rule 210 §302.1(c)(2), 271][40 CFR Part 75.10 and 60.13]

D. Within 90 days after the commencement of commercial operations (as defined by 40 CFR 72.2), natural gas fuel flowmeters shall be installed, certified, and operated on each fuel line to monitor the unit-specific fuel flow to the combustion turbines and duct burners in accordance with 40 CFR Part 75.

[County Rule 210 §302.1(c)(2)][40 CFR Part 75.10]

E. Within 90 days after the commencement of commercial operations (as defined by 40 CFR 72.2), ammonia flowmeters shall be installed, certified, and operated on each SCR unit to monitor the ammonia injection rate. The flowmeters will be sampled by a data acquisition system at a frequency of no less than once every 15 minutes and averaged into 24-hour periods. This data will be used to verify compliance with the minimum injection rate as described in Condition 20.F and Appendix C and the maximum injection rate as described in Condition 18.A.2).

[County Rule 210 §302.1(c)(2)]

F. NOx emissions for normal operations, startup and shutdown emissions shall be measured using the continuous emission monitoring system (CEMS) applied to each of the emission units. During the first two years of the permit term, to ensure that the SCR system is properly operated to achieve the design control rate of 2.5 ppm NOx the equivalent anhydrous ammonia injection rate shall not be lower than the value calculated as described in Appendix C of this permit, using the ammonia flowmeter required in

Condition 20.E above. After the initial two year period, the final NO_x limit shall be determined, and the minimum ammonia injection rate monitoring requirement shall no longer apply.

[County Rule 210 §302.1(c)(2), County Rule 360]

G. CO emissions for normal operations and startup/shutdown shall be measured using a CEMS that has been installed, certified, and operated in accordance with 40 CFR Part 60. Either a single dual-range CO analyzer or two CO analyzers calibrated for different concentration ranges may be used. The applicant shall notify the Control Officer prior to startup which monitoring method will be implemented.

[County Rule 210 §302.1(c)(2), 271]

H. In the event that the CO analyzer measuring startup/shutdown emissions is not operational or cannot reliably document emissions, startup/shutdown CO emissions shall be determined by monitoring the total elapsed time in hours during the startup/shutdown sequence and multiplying by the emission rates listed in Table 2.

I. VOC and PM_{10} emissions during normal operations and startup/shutdowns shall be determined through fuel usage monitoring and application of the appropriate emission factors. Nevertheless, Permittee shall evaluate developing monitoring methods and technologies and, if a more accurate and reliable method or technology for monitoring these emissions, which accuracy and reliability has been demonstrated in practice in similar equipment, becomes commercially available and is feasible and practicable to implement on the equipment subject to this permit, this paragraph "I" shall be revised by the County to require that new method or technology.

J. The Permittee shall monitor for compliance with the sulfur dioxide limits of Table 3 of this permit by obtaining and recording the sulfur content of the pipeline quality natural gas used in the Combined Cycle Systems using the following custom testing schedule. The Permittee shall monitor sulfur content of the pipeline-quality natural gas fired in any combustion turbine at least once every calendar quarter. If, at any time, a fuel sulfur analysis indicates noncompliance with the fuel sulfur limit in Condition 19.A.1 of this permit, the Permittee shall notify EPA of such excess emissions within one week of the analysis. In the event of such noncompliance, the Permittee shall conduct fuel sulfur monitoring weekly until notified by EPA that less frequent monitoring is acceptable. The Permittee shall determine compliance with the sulfur content limit in Condition 19.A.1 as follows: ASTM D 1072-80, D 3031-81, D 4084-82, D 4084-94, D 4468-85 or D 3246-81 (incorporated by reference--see 40 CFR 60.17) shall be used to determine the sulfur content of gaseous fuels either at the site, or upstream or downstream of the facility. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. SO2 emissions from gas firing during normal operations and startup/shutdowns shall be determined through fuel usage monitoring and application of the Acid Rain (40 CFR 75) natural gas emission factor of 0.0006 lb/MMBtu.

[County Rule 210 §302.1(c)(2)][40 CFR 60 Subpart GG, §334(b)(2), §335(d)and(e)]

K. Compliance with HAP emission limits shall be achieved either through the use of representative HAP emission factors (directly determined through source tests required

in Condition 22 and described below) and monitored fuel firing rates or through the application of control technology as required.

Compliance will be monitored by source tests for the HAP species formaldehyde, acetaldehyde, toluene, xylene, ethylbenzene, and hexane. During the first year of commercial operation of the first combustion turbine emission unit, a HAP source test without duct burner firing (triplicate runs to verify measurement accuracy) will occur within 180 days of commencement of commercial operation. If the HAP source test demonstrates that HAP emissions would be below the allowable HAP levels for all eight proposed combustion turbines combined, then no further HAP testing of any identical combustion turbine is required. If the HAP source test demonstrates that HAP emissions would be greater than the allowable levels for all eight proposed combustion turbines combined, then the Permittee agrees to install oxidation catalyst control systems as required to maintain facility wide HAP emissions below the HAP emission limits.

L. The Permittee shall obtain and record the daily average Gross Caloric Value of the natural gas used in the Combined Cycle Systems as required by 40 CFR Part 75, Appendix D at least as frequently as required by 40 CFR Part 75, Appendix D and Appendix G or permit condition E, whichever is more frequent.

[County Rule 371] [40 CFR 75]

M. The Permittee shall monthly inspect the Wet Cooling Tower drift eliminators for proper installation, maintenance, and operation. The results of the inspection shall be recorded in a facility log.
PM10 emissions from the cooling towers will be determined through monthly testing of TDS concentrations and calculations using the following equation:

PM10 (lb/hr) = Tower capacity (gpm) * TDS (ppm) * 1.26E-9

where 1.26E-9 = (8.4 lb/gal) (0.0005% drift) (60 min/hr) (0.5 PM10/PM) (10E-6/ppm)

[County Rule 210 §302.1(c)(2)]

N. The Permittee shall daily monitor and record the conductivity of the cooling tower water and shall monthly monitor and record the Total Dissolved Solids (TDS) content of the cooling tower water.

[County Rule 210]

O. Opacity Determination: Opacity shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9 except opacity of visible emissions from intermittent sources: Opacity of visible emissions from intermittent sources shall be determined by observations conducted in accordance with EPA Reference Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.

[County Rule 300 §§501, 502] [locally enforceable only]

P. The Permittee shall monthly conduct a facility walk-through and observe visible emissions from CT/HRSG stacks, abrasive blasting, emergency fire water diesel pumps and any other device capable of emitting any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[County Rules 300, 210 and SIP Rule 30]

R. If visible emissions are observed from any device capable of emitting any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds; the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 by a certified visible emissions (VE) reader. This reading shall be taken within 3 days of the observance of visible emissions and taken weekly thereafter during each week that the unit is in operation until there are no visible emissions. If the problem is corrected before three days has passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[County Rule 210] [SIP Rule 31]

S. The Permittee shall maintain a log of complaints of odors detected off-site. The log shall contain a description of the complaint, date and time that the complaint was received, and if given, name and/or phone number of the complainant. The logbook shall describe what actions were performed to investigate the complaint, the results of the investigation, and any corrective actions that were taken.

[SIP Rule 32][County Rules 320 and 210 §302.1]

T. The Permittee shall keep all the records of the fuel supplier certification for the diesel fuel being combusted for at least five years. The supplier certification shall include:

1) the name of the supplier
2) the sulfur content of the fuel
3) the method used to determine the sulfur content of the fuel
4) the date that the fuel was delivered to the site
5) the date that the fuel was sampled for sulfur content

[County Rules 320, 210 §302.1.c and SIP Rule 32]

U. A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices as required by 40 CFR Part 60 or Part 75. The records shall be recorded in a permanent form suitable for inspection. The file shall be maintained for at least five years following the date of such measurement, maintenance, report, or record.

[County Rule 210 and 360] [40 CFR 60.7]

V. Particulate Matter Compliance Determination: The Permittee shall monitor for compliance with the particulate matter emissions limits of the permit by taking a visual remission observation of the stack emissions from each steam unit and each combustion turbine during each week of operation that the equipment was used more than 10 hours. If emissions are visible, the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 by certified reader. This reading shall be taken within 3 days of the visible emissions and taken thereafter weekly until there are no visible emissions. If the condition causing the visible emissions is eliminated before three days have passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. If the Reference Method 9 reading exceeds 15 percent opacity, the Control Officer may require emissions testing by other EPA approved Reference Method such as Reference Methods 5 or 201A to demonstrate compliance with the particulate matter emission limits of these Permit Conditions.

For the purposes of these Permit Conditions, a certified visible emissions reader shall mean an individual who, at the time the reading is taken, is certified according to the County Rule Appendix C Section 3.4.

[County Rule 210 §302.1.c(2) and SIP Rule 31]

21. REPORTING REQUIREMENTS

A. The Permittee shall file a written notice with the Control Officer as described in 40 CFR 60.4, 40 CFR 60.7, 40 CFR 60.19, and 40 CFR 60.49b(a) as follows:
   1) A notification of commencement of construction or reconstruction of the facility postmarked within 30 days of such date
   2) A notification of the actual date of initial startup of each of the Combustion Turbines and Duct Burners postmarked within 15 days of such dates,
   3) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under 40 CFR 60.14(e). This notice shall be postmarked within 60 days or as soon as commenced and shall include information describing the precise nature of the change, present and proposed emissions control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.
   4) In accordance with 40 CFR 60.4, the notifications required by this Permit Condition shall be sent in duplicate to the Director, Air and Waste Management Division, Region IX of the United States Environmental Protection Agency (USEPA). A copy of the notifications shall be sent to the Control Officer.

[County Rule 360 §301] [40 CFR 60.4(a), (b), (D)] [40 CFR 60.7(a), (b), (f)] [40 CFR 60.14(e)] [40 CFR 60.19] [40 CFR 60.49b(a)]

B. The Permittee shall electronically report to EPA the data and information as required by 40 CFR Part 75.64 on a quarterly basis. Quarterly submittals shall include facility data, unit emission data, monitoring data, control equipment data, monitoring plans and quality assurance data and results.

[40 CFR 75, County Rules 210 and 371]

C. The Permittee shall file a semiannual Compliance Report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the

previous year and March 31st of the current year. The second certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial Compliance Report shall reflect the compliance status of the source beginning with the date of the permit issuance. The Compliance Report shall include the following information:

1) Summary of compliance status with respect to each condition contained in this permit; including, but not limited to a description of the basis for the summary conclusions with respect to each permit condition.
2) Description of and an explanation for any deviations from any permit condition at any time.
3) A certification that construction has not been discontinued or suspended for 18 months or more. Once construction is complete, a certification that the facility has been constructed as required by this Permit and construction has been completed.
4) A certification as to the truth and accuracy of the information provided.
5) In addition summary information provided in the Compliance Report, the Permittee shall maintain on site at least the following information that demonstrates the conclusions reached in the Compliance Report:
   a) Hours of the operation and amount of fuel burned each hour for each combustion turbine and diesel fire pump engine.
   [County Rules 210 and 320] [SIP Rule 32]
   b) Electrical energy output of each Combined Cycle System for each hour of operation.
   [County Rules 360]
   c) Dates on which visible emissions observations were taken, the test method used, and the results of the observations;
   [County Rules 300, 210 and SIP Rule 30]
   d) Fuel supplier certification regarding sulfur content for all diesel fuel combusted;
   [County Rules 210 and 320] [SIP Rule 32]
   e) If any fuels other than pipeline quality natural gas were used in the Combined Cycle Systems and the Auxiliary Boiler and if any fuels other than commercially available diesel fuel were used in the emergency diesel fire pump engine;
   [County Rule 210]
   f) Continuous Emissions Monitoring data related to the emission limits contained in this permit, calibrations, quality assurance, performance demonstrations, and certifications for the reporting period.
   [County Rule 210 and 40 CFR 60.19]
   g) Stack emissions test results related to emission limits and/or operational requirements in this Permit.
   [County Rule 210 and 40 CFR 60.19]
   h) Cooling tower inspection log and results of conductivity and TDS monitoring.
   [County Rule 210]
   i) Odor log.
   [County Rule 210]
   j) Any other records and reports required by any Permit Condition contained in this Permit.
   [County Rule 210]
   [40 CFR 60.7 and 60.19]

22. TESTING REQUIREMENTS

A. The following apply to all emissions testing required by this Permit Condition:

1) The Permittee shall submit an approvable test protocol to the Department, for review and approval at least 30 days prior to the emissions test. A fee for each stack to be tested shall be submitted with the test protocol as required by Rule 280.
[County Rule 270 and 280 §301.5 and 40 CFR 60.7 and 60.19]

2) The Permittee shall notify the Department in writing at least two weeks in advance of the actual time and date of the emissions test so that the Division may have a representative attend.
[County Rule 270 §404 and 40 CFR 60.7 and 60.19]

3) The Permittee shall complete and submit a report to the Department within 30 days after completion of the emissions test. The report shall summarize the results of the testing in sufficient detail to allow a compliance determination to be made.
[County Rule 270 §401 and 40 CFR 60.7 and 60.19]

Note: All protocols, notifications and reports required by this permit condition should be addressed to the attention of the Compliance Testing Supervisor.

B. Testing Requirements for the Combined Cycle Systems

The Permittee shall monitor for compliance with the emission limits of Tables 1 through 2 by conducting stack emissions tests as specified in Table 5.
[County Rule 210] [locally enforceable only][40 CFR 60.8 and 60.11]

Within 60 days after achieving the maximum production rate of the affected emission units, but not later than 180 days after the initial startup of the equipment (as defined by 40 CFR 60.2), and at such other times as specified by MCESD, the owner/operator shall conduct performance tests for all contaminants from each unit as shown below and for other pollutants that may be required by MCESD.

Testing shall be conducted for each combustion turbine for VOC, NOx, CO, and PM10 under the operating scenarios outlined in Table 5. All tests shall be three hours in duration.

Testing for the duct burners will follow the requirements listed at 40 CFR Part 60.46b(f).

In addition to the above tests, the owner/operator shall conduct a performance test for the HAP species formaldehyde, acetaldehyde, toluene, xylene, ethylbenzene, and hexane at an operating load of +/- 5% of nameplate capacity without duct burner firing within 180 days of commencement of commercial operation.

Table 5

Stack Emissions Test Requirements

Device to be Tested	Pollutant	Method	Frequency
Each Combined Cycle System when Operating with Duct Burners ON and 95% to 105% of nameplate capacity of the Combined Cycle System (for CO, the tests will be performed both with and without power augmentation)	NOx CO PM10 VOC	Method 7e Method 10 Method 5 or 201A and 202, or other Methods approved by the Control Officer. Method 25a and 18	Startup, and for PM10 and VOC every twelve months thereafter, and for NOx and CO every 60 months thereafter
Each Combined Cycle System when Operating with Duct Burners ON and 95% to 105% of nameplate capacity of the Combined Cycle System	Ammonia	Method specified by the Control Officer	Startup and every sixty months thereafter, and for any individual turbine unit, within three months of the time the ammonia injection rate exceeds 99.2 pounds per hour and sixty months thereafter, whichever is more frequent
Each Combined Cycle System when Operating with Duct Burners OFF and 95% to 105% of nameplate capacity of the Combustion Turbine (for CO, the tests will be performed both with and without power augmentation)	NOx CO PM10 VOC	Method 7e Method 10 Method 5 or 201A and 202, or other Methods approved by the Control Officer. Method 25a and 18	Startup, and for PM10 and VOC every twelve months, and for NOx and CO every 60 months thereafter unless all emission limits in Table 2of this Permit are met with Duct Burners ON
Each Combined Cycle System when Operating with Duct Burners OFF and 60% to 80% of nameplate capacity of the Combustion Turbine	NOx CO	Method 7e Method 10	Upon Initial Startup, and every 60 months thereafter
Each Combined Cycle System when Operating with Duct Burners OFF and 60% to 80% of nameplate capacity of the Combustion Turbine	PM10 VOC	Method 5 or 201A and 202, or other Methods approved by the Control Officer. Method 25a and 18	Startup and every twelve months thereafter

[County Rule 210 §302.1(c)(2) and (3)] [locally enforceable only][40 CFR 60.8]

23. OTHER:

A. PERMIT SHIELD [County Rule 210 §§405.7, 407]

Compliance with the conditions of this Permit shall be deemed compliance with the applicable requirements identified in Appendix "B" of this Permit. The Permit Shield shall not extend to minor permit revisions.

B. COMMENCEMENT OF CONSTRUCTION:

[40 CFR 52.21(r)(2)][County Rule 240.304.4]

The facility shall commence construction as defined in County Rule 100.232 within 18 months of the effective date of this Permit. If construction is not commenced within 18 months, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this Permit shall become invalid. The Control Officer shall terminate this Permit if construction is not begun within 18 months or if construction is suspended for more than 18 months.

24. PERMIT CONDITIONS FOR SPRAY COATING OPERATIONS AS SUPPORT ACTIVITIES FOR THIS FACILITY *(Note: This does not include architectural coatings which is covered elsewhere in these permit conditions):*

A. OPERATIONAL LIMITATIONS AND STANDARDS:

. The Permittee shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

1) Should the Permittee operate spray coating equipment outside of a building, the Permittee shall operate all spray coating equipment inside an enclosure which has at least three sides a minimum of eight feet in height and able to contain any object(s) being coated.
   a) For three-sided enclosures, the Permittee shall direct the spray in a horizontal or downward pointing manner so that overspray is directed at the walls or floor of the enclosure. No spraying shall be conducted within three feet of any open end and/or within two feet of the top of the enclosure.
   b) For enclosures with three sides and a roof, or for complete enclosures, the Permittee shall direct the spray into the enclosure so that the overspray is directed away from any opening in the enclosure. No spraying shall be conducted within three feet of any open end and/or within two feet of any open top of the enclosure.

[County Rule 315 § 301.1]

2) The Permittee shall install and operate a filtering system on any spray booth or enclosure with forced air exhaust.
   a) The filtering system shall have an average overspray removal efficiency of at least 92% by weight, as certified in writing by the manufacturer, for the type of material being sprayed.
   b) No gaps, sags or holes shall be present in the filters and all exhaust must be discharged into the atmosphere.

[County Rule 315 § 301.2]

The Permittee shall be exempt from Subsection A of this Permit Condition if the spray coating operation is one of the following:

1) Spray coating of buildings or dwellings, including appurtenances and any other ornamental objects that are not normally removed prior to coating;

2) Spray coating of facility equipment or structures which are fixed in a permanent location and cannot easily be moved into an enclosure or spray booth and which are not normally dismantled or moved prior to coating;
3) Spray coating of objects which cannot fit inside of an enclosure with internal dimensions of 10'W x 25'L x 8'H;
4) Enclosures and spray booths and exhausts located entirely in a completely enclosed building, providing that any vents or openings do not allow overspray to be emitted into the outside air; or
5) Coating operations utilizing only hand-held aerosol cans.

[County Rule 315 § 302]

B. MONITORING/RECORDKEEPING:

[County Rule 210 § 302.1 c]

1) The Permittee shall inspect each filter installed on a spray booth or enclosure, for gaps, sags or holes once per week when the spray booth or enclosure is actively in use.

   a) Should the Permittee observe any gaps, sags or holes in any of the filters, the Permittee shall immediately repair or replace the filter and record the name of the inspector, the location of filtering system containing the filter (if more than one spray booth), and the time and date that the filter was replaced.
   b) If no gaps, sags or holes are observed in any of the filters, the Permittee shall record the name of the inspector, the location of the filtering system containing the filter (if more than one spray booth), and the time and date that the filter was inspected.

2) The Permittee shall inspect the facility for evidence of any spraying activity that occurred outside of the spray booth once each week that spray coating operations are conducted.

3) Record Keeping Requirements: The Permittee shall maintain on file and make available to the Control Officer upon request, a copy of the manufacturer's specifications verifying that the average overspray removal efficiency for the filter is at least 92% by weight.

[County Rule 210 § 302.1.d]

C. REPORTING CONDITIONS

[County Rule 210 §302.1 e. (1)]

For the purposes of the semi-annual compliance certification, the Permittee shall provide the following information:

If the Permittee operates all spray coating equipment inside an enclosure without fixed air exhaust, the Permittee shall provide a statement certifying the following:

1) That the enclosure has at least three sides that are a minimum of eight feet in height;
2) That no spraying was conducted within three feet of any open end, or within two feet of any open top of the enclosure; and
3) That the spray is directed in a horizontal or downward pointing manner for three-

sided enclosures, or away from any opening for complete enclosures and three-sided enclosures with roofs.

If the Permittee operates all spray coating equipment with a filtering system on a spray booth or enclosure with forced air exhaust, the Permittee shall provide a statement certifying the following:

1) That each filter installed on a spray booth or enclosure was inspected for gaps, sags or holes once weekly when the spray booth or enclosure was actively in use.
;
2) That all filters that were observed to have gaps, sags or holes were immediately replaced; and
3) Details of the make and manufacturer of each filter used as well as its overspray control efficiency.

25. PERMIT CONDITIONS FOR SURFACE COATING OPERATIONS AS SUPPORT ACTIVITIES AT THIS FACILITY:

A. ALLOWABLE EMISSIONS:

The Permittee shall comply with one of the following for all applications of surface coatings:

1) Meet the limits in Table 1.
2) Operate an Emission Control System (ECS) in accordance with subsection 306.1 of Rule 336 when applying a coating that exceeds the VOC limits in Table 1.
3) Qualify for an exemption under Rule 336 Section 305.

TABLE 1

SURFACE COATING EMISSION LIMITS		
TYPE OF SURFACE COATING	LIMITS AS APPLIED: VOC content minus exempt compounds (see subsection 255.1)	
Column I	**Column II** lbs/gal	g/liter
Can Coating		
Sheet Basecoat (Exterior and Interior) and Overvarnish	2.8	340
Two-Piece Can Exterior (Basecoat and Overvarnish)	2.8	340
Two and Three-Piece Can Interior Body Spray	4.2	510
Two-Piece Can Exterior End (Spray or Roll Coat)	4.2	510
Three-Piece Can Side-Seam Spray	5.5	660
End Sealing Compound	3.7	440
Can Printing Ink	2.5	300
Coil Coating (any coat)	2.6	310
Metal Furniture Coating	3.0	360
Large Appliance Coating	2.8	340
OTHER METAL PARTS AND PRODUCTS COATING (As defined in Section 231) The following includes Non-adhesive Coating, Adhesive, Adhesive Primer, Caulking, and Beaded Sealants:		

SURFACE COATING EMISSION LIMITS		
TYPE OF SURFACE COATING	LIMITS AS APPLIED: VOC content minus exempt compounds (see subsection 255.1)	
Column I	**Column II** lbs/gal	g/liter
Air-Dried Coating	3.5	420
Baked Coating [above 200°F (93°C)]	3.0	360
Silicone Release Coating: Baked or Air-Dried	3.5	420
Fabric Coating	2.9	350
Film Coating	2.9	350
COATING PLASTIC PARTS AND PRODUCTS THAT ARE Not Defined as Flexible	3.5	420
COATING FLEXIBLE PLASTIC PARTS AND PRODUCTS		
Primer	4.1	490
Color Topcoat	3.8	450
Basecoat/Clear Coat (Combined System) – Limit for either coat	4.5	540
Paper Coating, including Adhesives	2.9	350
Vinyl Coating (Coating on Vinyl)	3.8	450
STRIPPABLE BOOTH COATINGS	2.0	240

[Maricopa County Rule 336 §301] [SIP Rule 336 §301]

B. OPERATIONAL LIMITATIONS/STANDARDS:

1) The Permittee shall employ one of the following for all applications of surface coating containing more than 2 pounds of VOC per gallon (240 g/L) minus exempt compounds:

a) A low pressure spray gun; or
b) An electrostatic system; or
c) A system that atomizes principally by hydraulic pressure, including “airless” and “air assisted airless”; or
d) Non-atomizing or non-spraying application methods, such as but not limited to dipping, rolling, or brushing; or
e) Any method which is approved by the Administrator of the Federal EPA and the Control Officer as having a transfer efficiency of 65% or greater.

[Maricopa County Rule 336 §302][SIP Rule 336 §302]

2) CLEANUP OF APPLICATION EQUIPMENT: The Permittee shall comply with the following when using VOC-containing material to clean application equipment:
   a) Disassemble any spray gun and other application equipment and clean it in:
      (1) A container which remains covered at all times, except when the application equipment is being handled in the container, or transferred into or out of the container; or

(2) A commercially-sold gun cleaning machine which shall be operated and maintained as stipulated in the Air Pollution Permit's Operation and Maintenance (O&M) Plan, or – in the absence of its mention in the O&M Plan – according to manufacturer's or distributor's instructions.

b) Vapor Pressure Limits: The Permittee subject to this rule using VOC-solvent to clean coating application equipment shall use only solvent which, as used, has a VOC-vapor pressure below 35 mm Hg at 20° C (68° F), except for sprayless equipment exempted pursuant to subsection 305.6.

[Maricopa County Rule 336 §303][SIP Rule 336 §303]

3) HANDLING AND DISPOSAL OF VOC:

a) Use And Storage: The Permittee shall cover and keep covered each VOC-containing material which is not currently in use. The Permittee shall store finishing and cleaning materials in closed or covered leak-free containers.

b) Disposal Of VOC And VOC-Containing Material: The Permittee shall store all VOC-containing materials intended for disposal including, but not limited to, rags, waste coatings, waste brushes, waste rollers, waste applicators, waste solvents, and their residues, in closed, leakfree containers which are legibly labeled with their contents and which remain covered when not in use.

[Maricopa County Rule 336 §304][SIP Rule 336 §304]

4) EXEMPTIONS:

a) Categorical Exemptions: This rule does not apply to the following operations:
(1) Aerospace coating operations (Rule 348).
(2) Architectural coating, including buildings and erected structures (Rule 335).
(3) Cleaning: VOC loss from cleaning or stripping a surface for coating or other purpose is regulated by Rule 331.
(4) Marine vessel exterior refinishing.
(5) Polyester coatings applied to polyester composites.
(6) Printing and graphic arts coating (Rule 337).
(7) Semiconductor manufacturing (Rule 338).
(8) Coating a highway vehicle or mobile equipment (Rule 345).
(9) Wood: Coating Wood Furniture (Rule 342); Coating Wood Millwork (Rule 346).

b) Exemptions For Qualified Materials: Rule 336 does not apply to the following materials that meet the specific qualification(s) and limitation(s) set forth herein:

(1) Leak-Preventing Materials: Sealants, adhesives, caulking, and similar materials used on the following substrates for the primary purpose of leak prevention are exempt from this rule:

(a) Non-metallic substrates; and
(b) Used substrates, post manufacture, such as, but not limited to, old joints and seals on pipe and valve assemblies.

(2) Adhesive Use:

(a) Adhesive and adhesive primer applications are exempt from this rule, except for the 2 categories that appear in Table 1, namely adhesive materials applied to other metal parts and products (as defined in Section 231), and adhesives used in paper coating (as defined in Section 233).

(b) Any adhesive exempted by this Rule 336 and to which no other rule in Regulation III specifically applies shall comply with the provisions of Rule 330 (Volatile Organic Compounds) of these Rules & Regulations.

(3) Certain Joint Fillers: Caulking and beaded sealants used to fill gaps or to fill joints between surfaces are exempt from this rule, except those used in manufacturing other metal parts and products as defined in Section 231 of this rule, or in the manufacturing of cans.

(4) Extreme Performance Coatings: Extreme performance coatings are exempt from the VOC limits of Table 1 when used under the following conditions:

(a) Used on internal combustion engine components that are normally above 250°F (121°C) during use; or

(b) Used at temperatures above 250°F (121°C) on items that are both included under SIC (Standard Industrial Classification, 1987) codes 3661, 3663, 3669, 3677, 3678, 3679, or 3769 and are electronic products in space vehicles and/or are communications equipment. The US Government Printing Office "Standard Industrial Classification Manual, 1987" (and no future editions) is incorporated by reference and is on file at Maricopa County Environmental Services Department, 1001 N. Central Avenue, Suite 201, Phoenix, Arizona 85004-1942.

c) ECS Use In Lieu Of Equipment/Practice: In lieu of meeting an equipment or work practice standard within Sections 302, 303, or 304, the Permittee is allowed to instead use an ECS that has a capture efficiency not less than 90% and meets all ECS requirements in Section 306.

d) Spray-Gun And VOC-Limit Exemptions: The following are exempt from subsection 301.1, subsection 301.2, and Section 302 of this rule:

(1) Coating with an aerosol can.

(2) Touch up or repair-coating operations as defined in Sections 250 and 240.

(3) Low usage coatings which in aggregate of all formulations do not exceed 55 gallons (208 liters) per year facility-wide if the Permittee updates usage-records of these coatings on each day of their use, pursuant to subsection 501.2.

(4) A small surface-coating source (SSCS) as defined in Section 243. However, once a small surface-coating source exceeds either the 15 lb

per day or the 2 tons per year limits that are required to maintain SSCS status, that facility is permanently subject to the limits of subsection 301.1, subsection 301.2, and Section 302, with the following exception:

(a) For such a facility that does not have either a 15 lb/day or a 2 ton/year VOC-emission limit in an Air Pollution Permit for processes regulated by this rule, the Permittee may retain the exemption if s/he agrees in writing to enforceable permit conditions that establish these or stricter limits.

(b) However, a facility that violates its permit limit of either 15 lbs VOC/day or 2 tons VOC/yr. for coating process regulated by this Rule 336 is permanently subject to the limits of subsections 301.1 and 301.2, and Section 302.

(5) A Quality Class Q protective coating that is used on equipment, structures, and/or components within a containment facility of a nuclear power plant and is approved in accordance with either ANSI standards N101.2 and N101.4 or with ASTM Standards D3911 and D3843.

(6) A tactical military-equipment coating that is approved in an MCESD Air Pollution Permit subsequent to a sufficient demonstration by the user that no compliant substitute exists.

e) Special Facilities/Operations:

(1) Silicone Release Coatings: Silicone release coating operations controlled by an ECS pursuant to subsection 301.2 are exempt from the 85 percent overall control efficiency requirement if the ECS demonstrates at least 70 percent overall control and the coating is applied with a liquid seal air spray system.

(2) Bonding Impact Resistant Rubber Lining To Metal: An adhesive and an adhesive-primer are exempt from Table 1 limits, but shall not have a VOC content of material exceeding 850 grams of VOC per liter (7.1 lb/gal), if such adhesive is used to bond sheets/strips of rubber to metal equipment so that such rubber sheathing directly contacts material received by the metal and so protects the metal. This exception does not apply to any other situations where adhesives are used to bond rubber to metal.

f) Exemption Of Coating Applicator Cleanup: The Permittee is allowed to use solvent that has at 20° C (68° F) a total VOC vapor pressure above 35 mm Hg for cleaning coating-application equipment, but only if such application equipment does not use spray devices and the same principal solvent is used for cleaning as is used in the coating.

g) Low-Usage Allowance For Restricted Guns: The Permittee may employ spray guns otherwise prohibited by Section 302 for use with coatings over 2 lb VOC /gal under the following limited conditions:

(1) If VOC emissions from the finishing application station, are captured and directed to an ECS complying with the provisions of Section 306.

(2) To coat the inside of pipes and tubes with a wand-style applicator.

(3) Using an airbrush or other small gun that has a reservoir capacity not exceeding 250 cc (8.8 fluid ounces) and is used solely for detailing, lettering, touchup, and/or repair.

[Maricopa County Rule 336 §305][SIP Rule 336 §305]

C. MONITORING AND RECORDKEEPING

1) The Permitee subject to this rule shall comply with the following requirements of subsections 501.1 and 501.2 that apply to materials regulated by this Rule 336. Records shall be retained for 5 years and shall be made available to the Control Officer upon request.

[Maricopa County Rule 336 §501][SIP Rule 336 §501]

2) Current Lists:

a) Maintain a current list of coatings, adhesives, reducers, thinners, gun-cleaning materials, additives, and any other VOC-containing materials regulated by this rule; give the VOC content of material for each as received (before thinning). A complete, neat assemblage of this data meets the requirements for a list. Express VOC content in 1 of 3 forms: pounds VOC per gallon, grams VOC per liter, or the percent VOC by weight along with the specific gravity or density,(2 numbers are required).

b) Less Stringent Recordkeeping For Consistently Low Users: The Permittee of a facility that always uses less than 2 gallons per day total of thinner and coating (listed in Table 1), meets the listing and recording requirements of subsections 501.1a, 501.1c, and 501.2 if:

(1) All purchase receipts/invoices of VOC-containing material that is regulated by this rule for the most recent 12 months are kept together; and
(2) Current data sheets show the VOC content of material for every VOC-containing substance currently used that is regulated by this rule.

c) Facilities That Are Not Small Surface-Coating Sources: Facilities that are not small surface-coating sources shall do the following:

(1) Coatings: For all coatings (except those recorded under the subsection 305.4c low usage allowance), make the following listings for coatings and adhesives that have VOC limits in Table 1:

(a) VOC Before Reducing: The VOC content of each coating as received, minus exempt compounds. (This figure is sometimes called the “EPA Method 24” VOC content on manufacturer’s data sheets). If the coating is a multi-part coating, list the VOC content which the manufacturer states the coating will have once you have mixed all the necessary parts together in the proportions specified by the manufacturer.

(b) List Maximum VOC Content Of Coating As Applied: For each coating that you thin/reduce or add any additive to, record in a permanent log either of the following:

i. The maximum number of fluid ounces thinner/reducer that you ever add to a gallon of unreduced coating (or maximum g/liter), and the maximum fluid ounces of every other additive you mix into a gallon of the coating; or
ii. The VOC content of the coating, after adding the maximum amount of thinner/reducer and other additives that you would ever add, as determined by the formula in subsection 255.1.

(2) Applicator Cleanup Solvent: Have a hardcopy of the VOC vapor pressure (VP) at 20°C (68°F) of solvent(s) used to clean spray guns, hoses, reservoirs, and any other coating application equipment. Any one of the following ways of providing the VP data is sufficient:
(a)A current manufacturer's technical data sheet;
(b)A current manufacturer's safety data sheet (MSDS);
(c)Actual test results; or
(d)A letter signed by an official or lab manager of the supplying facility.

[Maricopa County Rule 336 §501.1][SIP Rule 336 §501.1]

3) Frequency Of Updating Usage Records: Update your records, showing the type and amount used of each VOC-containing coating or adhesive which is regulated by name or type in Table 1, and update each VOC-containing material, related to surface coating, that is not addressed by Table 1. This includes, but is not limited to, thinners, surfacers, and diluents. Maintain records according to the following schedule:

a) Small Surface-Coating Sources: Small surface-coating sources shall update each month's records of coating use by the end of the following month.

b) All Other Sources: For a source that does not meet the definition of small surface-coating source:

(1) Monthly: Monthly update records of each coating used that complies with the VOC limits in Table 1. Complete a month's update by the end of the following month.

(2) Daily: Daily update the usage of each coating that exceeds its limits in Table 1, including coating exempted by subsection 305.4c.

[Maricopa County Rule 336 §501.2][SIP Rule 336 §501.2]

4) Grouping By VOC Content: For purposes of recording usage, coatings and adhesives that are in the same category in Table 1, and have similar VOC content, may be recorded under a name that includes the category name. The highest VOC content among the members of that grouping shall be assigned to that grouping, rounded to the nearest 10th of a pound. To identify what products belong within each group, after each group name and the group's VOC content of material must appear the name of each product in the group and its VOC content of material. **For example:** For flexible plastic parts, you use 20 gallons of primer that has 3.04 lb VOC/gal., 30 gallons of primer having 3.14 lb VOC/gal., and 40 gallons of primer having 2.89 lb VOC/gal. You

may record usage as 90 gallons of flexible plastic primer containing 3.1 lb VOC/gal. If grams VOC per liter is used to record VOC content, round off to the nearest whole number of grams.

[Maricopa County Rule 336 §501.3][SIP Rule 336 §501.3]

D. TESTING (if applicable)

As required by the Control Officer, compliance with this Rule shall be determined using one of the following means:

1) Measurement of VOC content of materials subject to Section 301 or Section 302 of this rule shall be conducted and reported using one of the following means:

   a) VOC content of coatings, solvents, and other substances having less than 5% solids will be determined by California's Bay Area Air Quality Management District (BAAQMD) Method 31 [April 15, 1992] or SCAQMD Method 313-91 [April 1997].

   b) The VOC content of coatings or other materials having 5% or more solids will be determined by test methods EPA Method 24, BAAQMD Method 31 [April 15, 1992] or California's South Coast Air Quality Management District (SCAQMD) Method 313-91 [April 1997].

      (1) Plastisols, powder coatings, and radiation-cured coatings shall be cured according to the procedures actually used in the coating process being tested before final VOC-emission determinations are made.
      (2) In the case of multi-component, polymerizing coatings, Method 24 shall be modified to eliminate the post-mixing dilution-step (that employs toluene or other solvent). Instead, the mixture shall be spread by appropriate technique to form a thin layer, occupying the entire bottom of the foil pan.

2) Measurement of air pressure at the center of the spray gun tip and air horns of an air-atomizing spray gun (reference subsection 302.1 and Section 225) shall be performed using an attachable device in proper working order supplied by the gun's manufacturer for performing such a measurement.

3) Temperature measurements shall be done with an instrument with an accuracy and precision of less than one-half degree Fahrenheit (0.25°C) for temperatures up to 480°F (250°C).

[Maricopa County Rule 336 §503.1][SIP Rule 336 §503.1]

E. REPORTING

The Permittee shall include the following information in each semiannual compliance report:

1) certification that the application of surface coatings continue to be in compliance with Rule 336 §301. If this certification can not be provided, the Permittee shall instead submit a statement detailing any corrective action taken in order to ensure future compliance;
2) a summary of the coatings, adhesives, reducers, thinners, gun cleaning materials, additives, and any other VOC-containing materials regulated by Rule 336 used at the facility. State the VOC-content of each in VOC per gallon of material or grams per liter of material;
3) certification that monthly and annual recordkeeping was performed as directed in the monitoring/recordkeeping requirements above. If this certification can not be provided, the

Permittee shall instead submit a statement detailing any corrective action taken in order to ensure future compliance; and

4) a summary of any testing that may have been performed during the period.

[County Rule 210 §302.1.e(1)]

26. PERMIT CONDITIONS FOR ARCHITECTURAL COATINGS:

A. Operational Limitations: The Permittee shall not apply any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

[County Rule 335 §301, SIP Rule 335 §301]

The Permittee shall not apply any non-flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings.

The Permittee shall not apply any architectural coating that exceeds the following limits. Limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

[County Rule 335 §303,305 and SIP Rule 335 §303,305]

SPECIALTY COATINGS:

COATING	(lb/gal)
Concrete Curing Compounds-	2.9
Dry Fog Coating	
Flat-	3.5
Non-flat-	3.3
Enamel Undercoaters-	2.9
General Primers, Sealers and Undercoaters-	2.9
Industrial Maintenance Primers and Topcoats	
Alkyds3.5	3.5
Catalyzed Epoxy.2	3.5
Bituminous Coating Materials-	3.5
Inorganic Polymers-	3.5
Vinyl Chloride Polymers-	3.5
Chlorinated Rubbers-	3.5
Acrylic Polymers3.5	3.5
Urethane Polymer3.5	3.5
Silicones-	3.5
Unique Vehicles-	3.5
Lacquers-	5.7
Opaque Stains-	2.9
Wood Preservatives-	2.9
Quick Dry Enamels-	3.3
Roof Coatings-	2.5
Semi-transparent Stains-	2.9

Semi-transparent and	
Clear Wood Preservatives-	2.9
Opaque Wood Preservatives-	2.9
Specialty Flat Products-	3.3
Specialty Primers, Sealers	
and Undercoaters-	2.9
Stains, All-	*2.9*
Traffic Coatings	
Applied to Public Streets and Highways	2.1
Applied to other Surfaces	2.1
Black Traffic Coatings	2.1
Varnishes	2.9
Waterproof Mastic Coating-	2.5
Waterproof Sealers-	3.3
Wood Preservatives Except Below Ground	*2.9*

The Permittee shall not apply any flat architectural coating which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings.

[County Rule 335 §304, SIP Rule 335 §304]

The following coatings are exempt from the architectural coatings requirements specified in the permit conditions above:

1) Architectural coatings supplied in containers having capacities of one quart or less.
2) Architectural coatings recommended by the manufacturer for use solely as one or more of the following:

   a) Below ground wood preservative coatings.
   b) Bond breakers.
   c) Fire retardant coatings.
   d) Graphic arts coatings (sign paints)
   e) Mastic texture coatings.
   f) Metallic pigmented coatings.
   g) Multi-colored paints.
   h) Quick-dry primers, sealers and undercoaters.
   i) Shellacs.
   j) Swimming pool paints.
   k) Tile-like glaze coatings.

[County Rule 335 §§306, 307 and SIP Rule 335 §§306, 307]

B. Recordkeeping/Monitoring: The Permittee shall keep the material list of all coatings used. The material list should contain the name of each coating, short description of the material, pounds of VOCs per gallon of coating, excluding water and colorant added to tint bases and amount used. If the coating is exempt from the volatile organic compounds content requirements, the justification for the determination shall be documented and kept on file.

[County Rule 210 §302.1.c(2).]

C. Reporting: The Permittee shall file a semiannual compliance report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second

certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial compliance report shall reflect the compliance status of the source beginning with the date of the permit issuance. Compliance report shall include material list and a list of the coatings which are exempt from the volatile organic compounds content requirements.

[County Rule 210 §302.1.e.]

D. Testing: If required by the Control Officer testing procedures to determine compliance with prescribed VOC limits shall be consistent with Reference Methods 24 and 24A in the Arizona Testing Manual for Air Pollutant Emissions.

[County Rule 335 §500 and SIP Rule 335 §500]

27. PERMIT CONDITIONS FOR DUST GENERATING OPERATIONS:

A. Dust Control Plan Required: The Permittee shall submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan, before commencing any routine dust generating operation. The Dust Control Plan shall include all the information contained in County Rule 310, Section 304 and shall describe all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. Any control measure that is implemented must meet the applicable standards described in these permit conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in County Rule 310.

[County Rule 310 §303 and 303.3(b)]

Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of these permit conditions at all times. In addition, the Permittee with an approved Dust Control Plan is still subject to all of the requirements of these permit conditions, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 §306]

If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any given fugitive dust source still exceed limits from this permit condition, then the Permittee shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that the Permittee is preparing revisions to the approved Dust Control Plan, the Permittee must still comply with all requirements of these permit conditions.

[County Rule 310 §305]

B. Allowable Emissions: The Permittee shall not cause, suffer, allow, or engage in any dust generating or other operation which causes fugitive dust emissions exceeding 20% opacity, even during a wind event (i.e., during wind speeds of 25 mph or greater). Exceedances of

the opacity limit that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the Permittee demonstrates all of the following conditions:

1) All control measures required were followed and one or more of the control measures listed below were applied and maintained;

   a) Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour. If dust generating operations are ceased for the remainder of the work day, stabilization measures must be implemented; or
   b) Apply water or other suitable dust suppressant once per hour; or
   c) Apply water as necessary to maintain a soil moisture content at a minimum of 12% as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administer of EPA. For areas which have an optimum moisture content for compaction of less than 12% as determined by ASTM Method D1557-91(1998) or other equivalent as approved by the Control Officer and the Administer of EPA, maintain at least 70% of the optimum soil moisture content.

2) The 20% opacity exceedance could not have been prevented by better application, implementation, operation, or maintenance of control measures;

3) The Permittee compiled and retained records, in accordance with Recordkeeping requirements of this permit, and

4) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

[County Rule 310 §301 and Table 2]

C. Operational Limitations:

1) Unpaved Access Road: The Permittee shall not allow fugitive dust emissions to exceed 20% opacity from unpaved access roads and :

   a) Shall not allow silt loading equal to or greater than 0.33 oz/ft^2; or
   b) Shall not allow the silt content to exceed 6%; or
   c) As an alternative to meeting the stabilization requirements for an unpaved access road, limit vehicle trips to no more than 20 per day and limit vehicle speeds to no more than 15 miles per hour. If complying with these permit conditions must include, in a Dust Control Plan, the number of vehicles traveled on the unpaved haul/access roads (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

[County Rule 310 §302.2]

2) Open Area Or Disturbed Surface Area: The Permittee on any disturbed surface area on which no activity is occurring shall meet at least one of the standards described below, as applicable. The Permittee shall be considered in violation of this permit if such inactive disturbed surface area is not maintained in a manner that meets at least one of the standards described below, as applicable.

    a) Maintain a visible crust; or
    b) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher; or
    c) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or
    d) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
    e) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
    f) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
    g) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the Environmental Protection Agency (EPA).

    [County Rule 310 §302.3]

3) Weed Abatement By Discing Or Blading: When engaged in weed abate-ment, the Permittee shall comply with the following work practices. Such work practices shall be implemented to meet the standards described in this permit condition.

    a) Apply water before weed abatement by discing or blading occurs; and
    b) Apply water while weed abatement by discing or blading is occurring; and
    c) Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with these permit conditions, after weed abatement by discing or blading occurs; or
    d) Establish vegetative ground cover in sufficient quantity, in compliance with these permit conditions, after weed abatement by discing or blading occurs.

    [County Rule 310 §308.8]

4) The Permittee shall not allow or engage in the following on a routine basis:
    a) Unpaved parking lots;
    b) Vehicle use in open areas;
    c) Bulk material transport, hauling, handling and open storage piles;
    d) Placement of bulk material onto paved surfaces; and
    e) Earthmoving operations on disturbed surface areas one acre or greater. Earthmoving activities associated with construction may be conducted after a separate earthmoving permit is obtained from the control officer.

    [County Rule 210 §302.1.b.(1)]

D. Recordkeeping/Monitoring:

If the Permittee is required to submit and obtain approval of a Dust Control Plan, the Permittee shall keep a daily written log recording the actual application or implementation of the control measures delineated in the approved Dust Control Plan. The log or the records and supporting documentation shall be made available to the Control Officer within 48 hours excluding weekends from written or verbal request.

[County Rule 310 §502]

Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained at least five years from the date such records are established.

[County Rule 310 §503]

E. Testing:

The following test methods shall be used as appropriate.

1) Opacity Observations:

a) Dust Generating Operations: Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Averaged Regulations) of County Rule 310, except opacity observations for intermittent sources shall require 12 rather than 24 consecutive readings at 15-second intervals for the averaging time.

[County Rule 310 §501.1(a)]

b) Unpaved Access Road: Opacity observations of any unpaved access road shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310.

[County Rule 310 §501.1(c)]

2) Stabilization Observations**:**

a) Unpaved Access Road: Stabilization observations for unpaved access roads shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310. When more than one test method is permitted for a determination, an exceedance of the limits established in this permit determined by any of the applicable test methods constitutes a violation of these Permit conditions.

[County Rule 310 §501.2(b)]

b) Open Area Or Disturbed Surface Area: Stabilization observations for an open area and vacant lot or any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described in County Rule 310 subsection 501.2(c), as applicable. The Permittee shall be considered in violation of this permit if such inactive disturbed surface area is not maintained in a manner that meets at least one of the standards described in County Rule 310 subsection 302.3, as applicable.

[County Rule 310 §501.2(c)]

3) Silt and Soil Moisture Content Methods:

a) ASTM Method C136-96a ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates").
b) ASTM Method D2216-98 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass").
c) ASTM Method 1557-91(1998) ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lb/ft3 (2,700 kN-m/m3)").

[County Rule 310 §504]

28. PERMIT CONDITIONS FOR ABRASIVE BLASTING WITH OR WITHOUT BAGHOUSE:

A. Allowable Emissions: The Permittee shall not discharge into the atmosphere from any abrasive blasting any air contaminant for a period or periods aggregating more than three minutes in any one-hour period which is a shade or density darker than 20 percent opacity.

[County Rule 312 § 301] [Locally enforceable only]

B. Operational Limitations: The Permittee shall utilize at least one of the following control measures for all abrasive blasting:
1) Confined blasting,
2) Wet abrasive blasting,
3) Hydroblasting,
4) The use of a CARB certified abrasive blasting media is a permissible control measure for use in dry, unconfined blasting operations provided that the following conditions are met:

a) Only an abrasive(s) on the most recent CARB certification list may used in the abrasive blasting process.
b) Blasting is performed only on a metal substrate.
c) The abrasive blasting medium is used only once.
d) The existing paint on the surface to be abraded is lead free (i.e. lead content < 0.1%).
e) Opacity limits of the County Rule 312 are adhered to.
f) The object to be blasted exceeds 8 feet in any dimension or the surface to be blasted is situated at its permanent location.
g) Blasting is not performed at ground level on a surface which may be disturbed by the process and contribute to particulate emissions (e.g. unpaved ground).

[County Rule 312 §302.4] [locally enforceable only]

5) The Permittee shall not forcibly exhaust abrasive blasting equipment to the outside of the building unless the exhaust is vented through a baghouse. The baghouse shall operate within operating parameters specified in Operation and Maintenance (O&M) Plan most recently approved in writing by the Control Officer.

[County Rule 210 §302.1(b)]

C. Record Keeping: The Permittee shall keep records of the following: following:

1) The dates when abrasive blasting activities are conducted and the type of abrasive material used.
2) Monthly records of the type and amount of abrasive blasting media used.
3) Monthly opacity readings of visible emissions for each month when abrasive blasting is conducted.
4) Opacity reading during the external blasting.
5) Every inspection or preventive maintenance performed on the baghouse according to the Operation and Maintenance Plan. The Permittee shall maintain records of the key system operating parameters required by the O&M Plan. The Permittee shall keep a log demonstrating that any training requirements in the approved O&M Plan are being met.

[County Rules 312 and 210 § 302.1.d] [locally enforceable only]

D. Monitoring/Testing: The Permittee shall monitor compliance with the opacity requirements of the permit conditions for abrasive blasting by observations of visible emissions conducted in accordance with EPA Reference Method 9 each time the external blasting is performed and each month the abrasive blasting with baghouse is performed for more than 10 hours.

Visible emission evaluation of abrasive blasting operations shall be conducted in accordance with the following provisions:

1) Emissions from unconfined blasting shall be read at the densest point of the emission after a major portion of the spent abrasives has fallen out, at a point not less than five feet nor more than 25 feet from the impact surface from any single abrasive blasting nozzle.
2) Emissions from unconfined blasting employing multiple nozzles shall be judged as single source unless it can be demonstrated by the Permittee that each nozzle, evaluated separately, meets the emission standards of these Permit Conditions.
3) Emissions from confined blasting shall be read at the densest point after the air contaminant leaves the enclosure.

[County Rules 210 § 302.1.c and 312 § 500] [locally enforceable only]

E. Reporting: The Permittee shall file a semiannual compliance report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial compliance report shall reflect the compliance status of the source beginning with the date of the permit issuance. Compliance report shall include a summary of the opacity readings and date of such readings during external blasting and blasting with baghouse, control measures utilized for abrasive blasting and dates on which any blasting was performed.

[County Rules 312 and 210 § 302.1.e.(1)] [locally enforceable only]

29. PERMIT CONDITIONS FOR THE COLD DEGREASERS AS SUPPORT ACTIVITIES FOR THIS FACILITIES:

A. OPERATIONAL LIMITATIONS/STANDARDS:
ALL CLEANING MACHINES SHALL BE ONE OF THE FOLLOWING TYPES:

1) Batch loaded cold cleaners with remote reservoir;

2) Batch loaded cold cleaners without a remote reservoir (such as solvent dip tank);

3) Shall use only low VOC cleaner (A low VOC cleaner is any solution or homogeneous suspension that, as used, contains less than 50 grams of VOC per liter of material (0.42 lb VOC/gal) or is at least 95% water by weight or volume as determined by an applicable test method in Section 502 of County Rule 331); OR

4) A sealed system. A sealed system is one that meets all of the following requirements:
   a) Is an airtight or airless cleaning system which is operated according to the manufacturer's specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:
   b) Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle.
   c) Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use.
   d) Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out.

[County Rule 210 §302.1]

SOLVENT HANDLING REQUIREMENTS:

5) All cleaning-solvent, including solvent soaked materials, shall be kept in closed leakfree containers that are opened only when adding or removing material. Each container shall be clearly labeled with its contents.
6) If an cleaning-solvent escapes from a container:
   a) Wipe up or otherwise remove immediately if in accessible areas.
   b) For areas where access in not feasible during normal production, remove as soon as reasonably possible.

7) Unless records show that BOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.

[County Rule 331 §301]

EQUIPMENT REQUIREMENTS FOR ALL CLEANING MACHINES:

8) The Permittee shall provide a leakfree container (degreaser) for the solvents and the articles being cleaned.
   a) The VOC-containment portion shall be impervious to VOC-containing liquid and vapors.

b) No surface of any freeboard required by these permit conditions shall have an opening or duct through which VOC can escape to the atmosphere except as required by OSHA.

[County Rule 331 §302.1][SIP Rule 331 §301]

9) The Permittee shall maintain and operate all cleaning machine equipment required by these permit conditions and any of its emission controls required by this rule.

[County Rule 331 §302.2][SIP Rule 331 §306.1]

10) The Permittee shall not dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere. Records of its disposal/recovery shall be kept in accordance with hazardous waste disposal statutes.

[SIP Rule 331 §306.4]

SPECIFIC OPERATING & SIGNAGE REQUIREMENTS FOR CLEANING MACHINES

11) The Permittee shall conform to the following operating requirements when cleaning with cleaning-solvents other than Low-VOC Cleaners:
   a) Comfort fans shall not be used near cleaning machines;
   b) Do not remove any device designed to cover the solvent unless processing work in the cleaning machine or maintaining the machine;
   c) Drain cleaned parts for at least (15) fifteen seconds after cleaning or until dripping ceases, whichever is later;
   d) If using a cleaning-solvent spray system:

      (1) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).
      (2) Pressure at the orifice from which the solvent emerges shall not exceed (10) ten psig and shall not cause liquid solvent to splash outside the solvent container.
      (3) In an in-line cleaning machine, a shower-type spray is allowed, provided that the spraying is conducted in a totally confined space that is separated from the environment.
      (4) Exceptions to the foregoing subsections 1), 2), and 3) are provided for in Special Non-vapor Cleaning Situations in the section titled the same below.

   e) The Permittee shall not cause agitation of a cleaning-solvent in a cleaning machine by sparging with air or other gas. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds (15) fifteen seconds;
   f) The Permittee shall not place porous or absorbent materials in or on a cleaning machine. This includes, but is not limited to, cloth, leather, wood, and rope. No object with a sealed wood handle, including a brush, is allowed;
   g) The ventilation rate at the cleaning machine shall not exceed 65 cfm per square foot of evaporative surface (20 $m^3/min/m^2$), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation, to meet health and safety requirements;

h) Limit the vertical speed of mechanical hoists moving parts in and out of the cleaning machine to a maximum of 2.2 inches per second and (11) eleven ft/min (3.3 m/min);
i) The Permittee shall prevent cross contamination of solvents regulated by Section 304 of Rule 331 with solvents that are not so regulated. Use signs, separated work-areas, or other effective means for this purpose. This includes those spray gun cleaning solvents that are regulated by another rule.

[County Rule 331 §303.1][SIP Rule 331 §306]

12) When using cleaning-solvent, other than Low-VOC Cleaner, in any solvent cleaning machine (degreaser) or dip tank, the Permittee shall provide the following signage requirements on the machine, or within 3¼ feet (1 meter) of the machine, a permanent, conspicuous label, or placard which includes, at a minimum, each of the following applicable instructions, or its equivalent:

a) "Keep cover closed when parts are not being handled." (This is not required for remote reservoir cleaners.)
b) "Drain parts until they can be removed without dripping."
c) "Do not blow off parts before they have stopped dripping."
d) "Wipe up spills and drips as soon as possible; store used spill rags [or 'wiping material'] in covered container."
e) "Don't leave cloth or any absorbent materials in or on this tank."
f) For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: "Operating instructions can be obtained from _____" where the Permittee shall list a person or place where the instructions are available.

[County Rule 331 §303.2][SIP Rule 331 §306]

SOLVENT SPECIFICATION

13) All cleaning solvents, except Low-VOC Cleaners, shall be conforming solvents. A conforming solvent is one which has a total VOC vapor pressure at 68ºF (20ºC) not exceeding (2) two millimeters of mercury column maximum total VOC vapor pressure through October 31, 2001; or 1 millimeter of mercury column maximum total VOC vapor pressure from November 1, 2001 and thereafter.
14) A nonconforming solvent may be used if it is utilized in a sealed system.

[County Rule 331 §304]

BATCH CLEANING MACHINES

15) The Permittee shall equip each batch cleaning machine with remote reservoir, including the cabinet type(s), with the following:

a) A sink-like work area or basin which is sloped sufficiently towards the drain so as to prevent pooling of cleaning-solvent.
b) A single, unimpeded drain opening or cluster of openings served by a single drain for the cleaning-solvent to flow from the sink into the enclosed reservoir. Such opening(s) shall be contained within a contiguous area not larger than 15.5. square inches (100 cm^2).
c) Provide a means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine.

[County Rule 331 §305.1][SIP Rule 331 §302.1]

16) The Permittee shall equip each batch cleaning machine without a remote reservoir with all of the following:

a) Have and use an internal drainage rack or other assembly that confines within the freeboard all cleaning-solvent dripping from parts and returns it to the hold of the cleaning machine (degreaser).
b) Have an impervious cover which when closed prevents cleaning-solvent vapors in the cleaning machine from escaping into the air/atmosphere when not processing work in the cleaning machine. The cover shall be fitted so that in its closed position the cover is between the cleaning-solvent and any lip exhaust or other safety vent, except that such position of cover and venting may be altered by an operator for valid concerns of flammability established in writing and certified to by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.
c) The freeboard height shall be not less than 6 inches (15.2 cm). Freeboard height for batch cleaning machines is the vertical distance from the solvent/air interface to the least elevated point of the top-rim when the cover is open or removed, measured during idling mode.
d) The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level which conforms to the applicable freeboard requirements.

[County Rule 331 §305.2][SIP Rule 331 §302.2]

SPECIAL NON-VAPOR CLEANING SITUATIONS

17) The Permittee shall operate and equip the devices as follows when blasting or misting with conforming solvents;

a) The device shall have internal drainage, a reservoir or sump, and a completely enclosed cleaning chamber, designed so as to prevent any perceptible liquid from emerging from the device; and
b) The device shall be operated such that there is no perceptible leakage from the device except for incidental drops from drained, removed parts.

[County Rule 331 §307.1]

18) The Permittee shall use a sealed system for all blasting or misting with a non-conforming solvent.

[County Rule 331 §307.2]

19) Cleaning systems using cleaning-solvent that emerges from an object undergoing flushing with a visible mist or at a pressure exceeding 10 psig, shall comply as follows;

a) For conforming solvents, use a containment system that is designed to prevent any perceptible cleaning-solvent liquid from becoming airborne outside the containment system, such as a completely enclosed chamber.
b) Use a sealed system for non-conforming solvents.

[County Rule 331 §307.3]

B. MONITORING/RECORDKEEPING:

1) The Permittee shall maintain a current list of cleaning-solvents; state the VOC-content of each in pounds VOC per gallon of material or grams per liter of material.
2) The Permittee shall record the amount of cleaning-solvent used at the end of each month for the previous month. Show the type and amount of each make-up and all other cleaning-solvent.
3) Annually the Permittee shall document the use of concentrate that is used only in the formulation of Low VOC Cleaner.
4) Annually the Permittee may, for purposes of recording usage, give cleaning-solvents of similar VOC content a single group-name, distinct from any product names in the group. The total usage of all products in that group are then recorded under just one name. (In such case the Permittee shall also keep a separate list that identifies the product names of the particular solvents included under the group name.) To the group name shall be assigned the highest VOC content among the members of that group, rounded to the nearest 10^{th} of a pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.

[County Rule 331 §501][SIP Rule 331 §501]

C. REPORTING:

The Permittee shall include the following information in each semiannual compliance report;

1) certification that the operational requirements, specifically applicable to the Permittee's type of cleaning, continue to be in compliance;
2) a summary of the listed cleaning-solvents currently used at the facility and state the VOC-content of each in VOC per gallon of material or grams per liter of material;
3) certification that monthly and annual recordkeeping was performed as directed in the monitoring/recordkeeping requirements above; and
4) a summary of any testing that may have been performed during the period.

[County Rule 210 302.1.e.(1)]

D. TESTING (if applicable):

1) As required by the Control Officer, the VOC content of solutions, dispersions, emulsions, and conforming solvents shall be determined by one of the following methods:

a) South Coast Air Quality Management District Method 313-91;
b) Bay Area Air Quality Management District Method 31;
c) Solids-free solutions, in which all organic components are VOCs, may be tested using Maricopa County Reference Method #100, "Total Organic Carbon for Windshield Washer Fluids", Maricopa County Air Pollution Control Rule 344 (April 7, 1999).

2) Within 60 days of permit issuance, the Permittee shall determine the VOC content of gaseous emissions entering and exiting the ECS by either EPA Method 18 or Method 25 or its sub-method.

3) Within 60 days of permit issuance, the Permittee shall determine the capture efficiency of the emission control device used by either using EPA Method 204 and its sub-methods, or by using mass balance calculation methods in concert with EPA Methods 2, 2a, 2c, and 2d.

[County Rule 331 §502][SIP Rule 331 §502]

30. PERMIT CONDITIONS FOR WIPE CLEANING:

A. Operational Limitations: The Permittee shall conform to the following operating requirements:

1) All solvent storage, including the storage of waste solvent and waste solvent residues, shall at all times be in closed leakfree containers which are legibly labeled with their contents and that are opened only when adding or removing material. Rags used for wipe cleaning shall be stored in closed containers when not in use;

[County Rule 331 §301.1], [SIP Rule 331 §306.3]

2) Do not dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere.

[SIP Rule 331 §306.4]

B. Monitoring/Recordkeeping: The Permittee shall:

1) Maintain a current list of solvents; state the VOC content of each in pounds per gallons or grams per liter. The VOC content of solvents and any liquids used as cleaning or degreasing agents shall be stated with water and non-precursors included.

[County Rule 331 §501.1]

2) Maintain monthly records showing the type and amount of each make up solvent added and any other VOC-containing materials used.

[County Rule 331 §501.2(a)], [SIP Rule 331 §501]

3) Monthly visually inspect the facility to ensure that operational limitations of Permit Condition 31.A(1)and (2) are being met.

[County Rule 210 §302.1.c]

4) Records of solvents disposal/recovery shall be kept in accordance with hazardous waste disposal statutes.

[County Rule 331 §306.4], [SIP Rule 331 Section 306.4]

C. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to Large Sources Compliance Supervisor containing the current list and summary of usage records of the solvents.

[County Rule 210 §302.1.e.(1)] [locally enforceable only]

31. PERMIT CONDITIONS FOR CUTBACK AND EMULSIFIED ASPHALT:

A. Operational Limitations:
The Permittee shall not use or apply the following materials for paving, construction, or maintenance of highways, streets, driveways, parking lots or for any other use to which County Rule 340 §300 and SIP Rule 340 §300 applies:

1) Rapid cure cutback asphalt.
2) Any cutback asphalt material, road oils, or tar which contains more than 0.5 percent by volume VOCs which evaporate at 500^0F (260^0C) or less using ASTM Test Method D 402-76.
3) Any emulsified asphalt or emulsified tar containing more than 3.0 percent by volume VOCs which evaporate at 500^0F (260^0C) or less as determined by ASTM Method D 244-89.

[County Rule 340 §301 and SIP Rule 340 §301]

The Permittee shall not store for use any emulsified or cutback asphalt product which contains more than 0.5 percent by volume solvent-VOC unless such material lot includes a designation of solvent-VOC content on data sheet(s) expressed in percent solvent-VOC by volume.

[County Rule 340 §303 and SIP Rule 340 §303]

B. Exemptions: The provisions of these Permit Conditions shall not apply to asphalt that is used solely as a penetrating prime coat and which is not a rapid cure cutback asphalt. Penetrating prime coats do not include dust palliatives or tack coats.

[County 340 §302.1 and SIP Rule 340 §302.1]

The Permittee may use up to 3.0 percent solvent-VOC by volume for batches of asphalt rubber which cannot meet paving specifications by adding heat alone only if request is made to the Control Officer, who shall evaluate such requests on a case-by-case basis. The Permittee shall keep complete records and full information is supplied including savings realized by using discarded tires. The Permittee shall not exceed 1100 lbs (500 kg) usage of solvent-VOC in asphalt rubber in a calendar year unless the Permittee can demonstrate that in the previous 12 months no solvent-VOC has been added to at least 95 percent by weight of all the asphalt rubber binder made by the Permittee or caused to be made for the Permittee. This Permit Condition does not apply to batches which yield 0.5 percent or less solvent-VOC evaporated using the test in County Rule 340 § 502.1.

[County 340 §302.3 and SIP Rule 340 §302.3]

C. Record Keeping: The Permittee shall keep daily records of the amount and type of asphaltic/bituminous material received and used, as well as the solvent-VOC content of this material. Safety data (MSDS) or technical data sheets shall be kept available.

[County 210 §302.1.c, County 340 §501 and SIP Rule 340 §501]

D. Testing Methods:
If required by the Control Officer the applicable testing procedures contained in County Rule 340 §502 and SIP Rule 340 §502 shall be used to determine compliance with these Permit Conditions.

[County 340 §502 and SIP Rule 340 §502]

E. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor containing the dates and description of any usage of cutback and emulsified asphalt.

[County Rule 210 §302.1.e.(1)] [locally enforceable only]

32. PERMIT CONDITIONS FOR VOLATILE ORGANIC COMPOUNDS:

No activities subject to Rule 330 shall occur at the facility.

APPENDIX A

MAJOR EQUIPMENT LIST

This permit applies to the following sources:

- 175 MW Siemens Westinghouse Model 501 F Combustion Turbine (8 identical units), or equivalent (designated CC1a through CC4b)
- Ammonia Selective Catalytic Reduction (SCR) (8 identical units)
- Duct Burner (Heat input rate: 125 MMBtu/hr) (8 identical units) (designated DB1a through DB4b) Heat Recovery Steam Generator (HRSG) (8 identical units) (no emissions)
- 180 MW Steam Turbine (4 identical units) (no emissions)
- Height of Stacks 175 ft (8 identical units)
- Cooling Tower 160,000 gpm capacity with high efficiency drift eliminators (4 identical units) (designated Cool1 through Cool4)
- Emergency Diesel Fire Water Pump Engine
- Graymills Cold Solvent Degreaser, 40 gallons

APPENDIX B

PERMIT SHIELD

Pinnacle West Energy Redhawk Generating Facility

Identified below are all federal, state and local air pollution control requirements applicable to the Permittee at the time the permit is issued. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance included in the Appendix B "Permit Shield" of this permit.

For each part, subpart, section, and subsection reference listed, all subsequent sections are assumed applicable. All other subparts or sections not listed are not applicable.

County Requirements

Maricopa County
Air Pollution Control Regulations

Regulation I General Provisions

Rule 100		General Provisions and Definitions (7/26/00 revision)
	§104	**Circumvention**
	§105	**Right of Inspection of Premises**
	§106	**Right of Inspection of Records**
	§ 301	**Air Pollution Prohibited**
	§ 501	**Emergency Provision**
	§ 502	**Excess Emissions**
	§ 503	**Records Required**
	§ 504	**Data Reporting**
	§ 505	**Emission Statements Required**

Rule 130		Emergency Provisions (7/26/00 revision)
	§400	**Administrative Requirements**

Rule 140		Excess Emissions (7/26/00 revision)
	§400	**Administrative Requirements**
	§500	**Monitoring and Records**

Regulation II Permits and Fee

Rule 200		Permit Requirements (5/20/98 revision)
	§ 301	**Permits Required**
	§ 302	**Title V Permit**

Rule 200		Permit Requirements (5/20/98 revision)
	§ 305	**Earth Moving Permit**
	§ 306	**Permit to Burn**
	§ 310	**Prohibition – Permit Modification**
	§ 311	**Permit Posting Required**

Rule 210		Title V Permit Provisions (5/20/98 revision)
	§ 402	**Permit Term**
	§ 403	**Source Changes Allowed without Permit Revisions**
	§ 404	**Administrative Permit Revisions**
	§ 405	**Minor Permit Revisions**
	§ 406	**Significant Permit Revisions**
	§ 407	**Permit Shields**

Rule 270		Performance Tests (11/15/93 revision)
	§ 301	**Performance Tests Required (approved test methods)**
	§301.1	**Applicable Procedures and Testing Methods**
	§ 301.2	**Opacity determined by Reference Method 9 of the AZ Testing Manual**
	§ 401	**Performance Tests Required**
	§ 402	**Testing Criteria**
	§ 403	**Testing Conditions**
	§ 404	**Notice of Testing**
	§ 405	**Testing Facilities Provided**
	§ 406	**Minimum Testing Required**
	§ 407	**Compliance with the Emission Limits**
	§ 408	**Additional Testing**

Regulation III Control of Air Contaminants

Rule 300		Visible Emissions (8/5/94 revision)
	§ 301	**Limitations – Opacity/General: Opacity ≤ 20%**
	§ 302	**Exceptions**
	§ 501	**Compliance Determination – Opacity**
	§ 502	**Compliance Determination – Opacity of Visible Emissions from Intermittent Sources**

Rule 310		Open Fugitive Dust Sources (2/16/00 revision)
	§ 301	**Opacity Limitation for Fugitive Dust Sources**
	§302	**Stabilization Requirements for Fugitive Dust Sources**
	§ 303	**Dust Control Plan Required**
	§ 304	**Elements of a Dust Control Plan**
	§ 305	**Dust Control Plan Revisions**
	§ 306	**Control Measures**
	§ 308	**Work Practices**
	§ 401	**Dust Control Plan Posting**
	§ 501	**Compliance Determination**
	§ 502	**Recordkeeping**
	§ 503	**Records Retention**
	§ 504	**Test Methods Adopted by Reference**
	Table 1	**Source Type and Control Measures**
	Table 2	**Source Type and Wind Event Control Measures**

Rule 312		Abrasive Blasting (7/13/88 revision)
	§ 301	**Limitations**
	§ 302	**Controls Required**

Rule 312		Abrasive Blasting (7/13/88 revision)
	§ 501	**Visible Emission Evaluation Techniques**

Rule 315		Spray Coating Operations (11/17/99 revision)
	§ 301	**Controls Required**
	§ 302	**Exemptions**
	§ 400	**Monitoring and Records**
	§ 500	**Test Methods**

Rule 320		Orders and Gaseous Air Contaminants (7/13/88 revision)
	§ 300	**Standards**
	§ 302	**Material Containment Required**
	§ 304	**Limitation – Hydrogen Sulfide**

Rule 331		Solvent Cleaning (4/7/99 revision)
	§ 301	**Solvent Handling Requirements**
	§ 302	**Equipment Required for All Cleaning Machines**
	§ 303	**Specific Operating and Signage Requirements for Cleaning Machines**
	§ 304	**Solvent Specifications for Non-Vapor Cleaning and Degreasing**
	§ 308	**Exemptions**
	§ 501	**Recordkeeping and Reporting**
	502	**Determination and Test Methods**

Rule 335		Architectural Coatings (7/13/88 revision)
	§ 301	**Prohibition – Bituminous Pavement Sealers**
	§ 303	**Final Limits – Non-Flat Architectural Coatings**
	§ 304	**Limits – Flat Architectural Coatings**
	§ 305	**Limits – Specialty Coating**
	§ 306	**Exemptions – Specific Use Coatings**

Rule 335		Architectural Coatings (7/13/88 revision)
	§ 307	**Exemption – Small Containers**

Rule 336		**Surface Coating (4/07/99 revision)**
	§ 301	**Surface Coatings**
	§ 302	**Application Methods for Surface Coatings**
	§ 303	**Cleanup of Application Equipment**
	§ 304	**Handling and Disposal of VOC**
	§ 308	**Exemptions**
	§ 501	**Recordkeeping and Reporting**
	§ 502	**Compliance Determination and Test Methods**

Rule 340		Cutback and Emulsified Asphalt (9/21/92 revision)
	§ 301	**Limitations**
	§ 501	**Recordkeeping and Reporting**

Rule 360		New Source Performance Standards (3/1/00 revision)
	§ 301	**Adopted Federal Standards**
	§ 301	**Subpart A – General Provisions**
	§ 301	**Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units**
	§ 301	**Subpart GG – Standard of Performance for Stationary Gas Turbines**

Rule 371		Acid Rain (3/1/00 revision)
	§ 301	**Incorporated Subparts of the Federal Acid Rain Regulations**

Regulation VI Emergency Episodes

Rule 600		Emergency Episodes (7/13/88 revision)
	§ 302	**Control Actions**

Appendices

Appendix C		Emergency Episodes (2/16/00 revision)
	Section 2	**Test Methods for Stabilization**
	Section 3	**Visual Determination of Opacity of Emissions from Sources for the Time-Averaged Regulations**

State Requirements

Arizona Administrative Code

(Applicable in Maricopa County; ARS § 49-106)

R18-2-719.C.1 **R9-3-519.C.1**	**For stationary rotating machinery having a heat input rate of 4200 million BTU per hour or less, the maximum allowable particulate emissions rate in pounds-mass per hour** **$E = 1.02Q^{0.769}$** **where: Q = heat input in million BTU per hour.**

This provision is applicable only to the diesel fire pump engine. The other fuel burning equipment (Combined Cycle Systems) are not "existing" equipment since a New Source Performance Standard applies (definition of "existing source", R18-2-101.38).

Federal Requirements

New Source Performance Standards General Provisions (40 CFR Part 60 Subpart A)

§ 60.4(a), (b), (D)	**Address**
§ 60.7(a), (b), (f)	**Notification and Recordkeeping**
§ 60.8	**Performance Tests**
§ 60.12	**Circumvention**
§ 60.13	**Monitoring**
§ 60.19	**General Notification and Reporting Requirements**

New Source Performance Standards – Standards of Performance for Industrial-Commercial-Institutional Steam generating Units (40 CFR Part 60 Subpart Db)

§ 60.44(b)	**Standard for Nitrogen Oxides**
§ 60.46b	**Compliance and Performance Test Methods and Procedures for particulate matter and nitrogen oxides**
§ 60.48b	**Emission Monitoring for particulate matter and nitrogen oxides**
§ 60.49b	**Reporting and recordkeeping requirements**

New Source Performance Standards – Standards of Performance for Stationary Gas Turbines (40 CFR Part 60 Subpart GG)

§ 60.332(a) and (b)	**Standard for Nitrogen Oxides**
§ 60.333	**Standard for Sulfur Dioxide**
§ 60.334(b)	**Monitoring of Operations**
§ 60.335	**Test Methods and Procedures**

NESHAP Program (40 CFR Part 61)

Subpart M	National Emission Standard for Asbestos
§ 61.145(a)(2)	**Standard for demolition and renovation**
§ 61.145(b)(1), (2), (3)(i) and (3)(iv), (4)(i) through (vii) and (4)(ix) and (4)(xvi)	**Notification requirements when demolishment involves less than 80 linear meters on pipes and less than 15 square meters on other services and less than one cubic meter off facility components of regulated asbestos containing material (RACM) where the length or area could not be measured previously or there is no asbestos.**

Accidental Release Program (40 CFR Part 68)

§ 112(r)(1)	**General duty to identify, prevent and minimize the consequences of accidental releases of listed and other extremely hazardous substances.**
Part 68	**Chemical Accident Prevention Provisions**

Permits Regulation (40 CFR Part 72)

Subpart A provisions	Acid Rain Program General Provisions
72.9(a), (b), (c), (d), (f), (g)4	**Standard Requirements**
Subpart B	Designated Representative
72.20	**Authorizations and Responsibilities of the Designated Representative**
72.21	**Submissions**
72.22	**Alternate Designated Representative**
72.23	**Changing the Designated Representative**
Subpart C	Acid Rain Permit Applications
72.30(a), (b)(2)(ii), (d)	**Requirements to Apply**
Subpart D	Acid Rain Compliance Plan and Compliance Options
72.40(a)(1)	**General, Compliance Plan with sulfur dioxide emissions**

Subpart I	Compliance Certification
72.90	**Annual Compliance Certification Report**
72.95	**Allowance Deduction Formula**
Appendix A	Methodology for Annualization of Emissions Limits
Appendix B	Methodology for Conversion of Emissions Limits
Appendix D	Calculation of Potential Electric Output Capacity

Sulfur Dioxide Allowance System (40 CFR Part 73)

Subpart B	Allowance Allocations
73.33(a), (c)	**Authorized Account Representative**
Subpart D	Allowance Transfer
73.50(b)	**Scope and Submission of Transfers**

Continuous Emission Monitoring (40 CFR Part 75

Subpart A	General
75.4(b)(2),(c)(2),(i)(2)	**Compliance Dates**
Subpart B	Monitoring Provisions
75.10	**General Operating Requirements**
75.11(d)(2)	**Specific Provisions for Monitoring SO2 Emissions**
75.12(a),(b),(c)	**Specific Provisions for Monitoring NOx Emissions**
75.13(b)	**Specific Provisions for Monitoring CO2 Emissions**
75.16(b),(e)	**Special Provisions for Monitoring Emissions from Common, Bypass, and Multiple Stacks for SO2 Emissions and Heat Input Determinations**
Subpart C	Operation and Maintenance Requirements
75.20	**Certification and Recertification Procedures**
75.21	**Quality Assurance and Quality Control Requirements**
75.22	**Reference Test Methods**

75.24	**Out-of-Control Periods and Adjustments for System Bias**
Subpart D	Missing Data Substitution Procedures
75.30	**General Provisions**
75.31	**Initial Missing Data Procedures**
75.32	**Determination of Monitor Data Availability for Standard missing Data Procedures**
75.33	**Standard Missing Data Procedures for SO2, NOx, and Flow Rate**
75.34	**Units with Add-on Emission Controls**
75.35	**Missing Data Procedures for CO2 Data**
75.36	**Missing Data Procedures for Heat Input Determinations**
Subpart E	Alternative Monitoring Systems
75.40	**General Demonstration Requirements**
75.41	**Precision Criteria**
75.42	**Reliability Criteria**
75.43	**Accessibility Criteria**
75.44	**Timeliness Criteria**
75.45	**Daily Quality Assurance Criteria**
75.46	**Missing Data Substitution Criteria**
75.47	**Criteria for a Class of Affected Units**
75.48	**Petition for an Alternate Monitoring System**
Subpart F	Recordkeeping Requirements
75.53(a), (b), (f)(1), (f)(4), (f)(6)	**Monitoring Plan**
75.57	**General Recordkeeping Provisions**
75.58(b), (c)	**General Recordkeeping Provisions for Specific Situations**
75.59	**Certification, Quality Assurance, and Quality Control Record Provisions**
Subpart G	Reporting Requirements

75.60	**General Provisions**
75.61	**Notifications**
75.62	**Monitoring Plan Submittals**
75.63	**Initial Certification or Recertification Application Submittals**
75.64	**Quarterly Reports**
Subpart H	NOx Mass Emissions Provisions
Appendix A	Specifications and Test Procedures
Appendix B	Quality Assurance and Quality Control Procedures
Appendix F	Conversion Procedures
Appendix G	Determination of CO2 Procedures

Protection of Stratospheric Ozone (40 CFR Part 82)

Subpart F Recycling and Emissions Reduction	
§ 82.161	**Technician Certification**
§ 82.166	**Reporting and Recordkeeping**

Subpart GSignificant New Alternatives Policy Program	
§ 82.174(b)	**Prohibition against use of substitute**
§ 82.174(c)	**Prohibition against use of substitute without adhering to use restrictions**
§ 82.174(d)	**Prohibition against use of substitute after added to list of unacceptable substitutes**

Federal Requirements

Maricopa County State Implementation Plan (as of 10/01/00)

Regulation I General Provisions

Rule 3 Air Pollution Prohibited

Regulation II Permits

Regulation II Permits
Rule 22 – Permit Denial – Action – Transfer – Posting – Revocation – Compliance
§F – Permit Posting
Rule 27 - Performance Tests

Regulation III Control of Air Contaminants

Rule 30 - Visible Emissions
Rule 31 - Emissions of Particulate Matter
§§ A.1,2,3,4,6,7, - Non-Point Sources of Particulate Matter.
§ H.1.a - Fuel Burning
Rule 310 - Open Fugitive Dust Sources
Rule 32 - Odors and Gaseous Emissions
§§ A, C, E, F
Rule 33.1 – Storage and Handling of Petroleum Products
Rule 34 – Organic Solvents – Volatile Organic Compounds

§ C.1 – Metal cleaning operations
§2.a. - Requirements for Cold Organic Solvent Cleaning
§E. 1,2 - Spray Paint and Other Surface Coating Operations
§ G - Organic Material Discharge
§ K – Limits on Photochemically Reactive Solvent
Rule 331 - Solvent Cleaning
§§ 301, 302, 306, 307, 501, 502
Rule 335 – Architectural Coatings
Rule 336 - Surface Coating
§§ 301, 302, 303, 304, 308, 501, 502
Rule 340 – Cutback and Emulsified Asphalt
§§ 301, 501

Rule IV Production of Records: Monitoring, Testing and Sampling Facilities

Rule 40	Recordkeeping and Reporting
Rule 41 **§ A**	Monitoring
Rule 42	Testing and Sampling
Rule 43	Right of Inspection

Regulation VII Ambient Air Quality Standards

Rule	Emergency Episode Criteria

72	
§72e	**Air Pollution Alert Actions**
§72f	**Air Pollution Warning Actions**
§72g	**Air Pollution Emergency Actions**

PERMIT SHIELD NON-APPLICABLE REQUIREMENTS

Identified below are *some* of the federal, state and local air pollution control requirements that do NOT apply to the Permittee at the time the permit is issued because the operations subject to these rules will not occur at Redhawk. The list is not all inclusive and there may be additional requirements that do not apply but are not listed in this Appendix of the permit.

Federal Rules Not Applicable to Redhawk

CAA Section 112(g)	Case by Case MACT
40 CFR Part 63	NESHAPs for Major Sources of HAPs
40 CFR 60 Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971
40 CFR 60 Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978
40 CFR 64	Compliance Assurance Monitoring

County and Federally Enforceable SIP Rules Not Applicable to AVEP

Rule 34(E)(1)	Non-architectural spray paint operations
Rule 310, Sections 302.1, 302.4, 308.1, 308.2, 308.3, 308.6, 308.7	Certain material handling and other dust generating activities that will not occur at AVEP on a routine basis
Rules 330 and 331, Sections 302-309	Solvent cleaning machines
Rules 50 and 314	Open Outdoor Fires

APPENDIX C

MONITORING NO_X COMPLIANCE BY AMMONIA INJECTION RATE MONITORING

To ensure that the SCR system at the Redhawk facility is properly operated to achieve the design control rate of 2.5 ppm NOx, the owner/operator shall monitor the ammonia injection rate for the first two years of commercial operation. Once this two year period is completed and the final NOx emission limit is determined, the "minimum ammonia injection rate" requirement and all associated monitoring provisions shall be no longer be effective. The minimum ammonia injection rate to achieve 2.5 ppm controlled levels shall be calculated as follows:

Step 1 – Calculate the required NOx Removal:

This calculation uses the actual measured NO_x concentration at the turbine outlet (i.e., before the SCR system) and the target control level of 2.5 ppm to determine the amount of NOx that must be removed. The actual turbine outlet NOx concentration is used because the turbine emissions can vary, and so the amount of NOx that must be removed also varies. From Equation F-5 in 40 CFR 75 (for converting from ppm to lb/MMBTU):

$NO_x = [1.194 \times 10^{-7}$ (lb/scf)/ppm] [X-2.5 ppm] [8,710 scf/MMBTU] [(20.9%)/(20.9% - 15%O_2)]

where:

X = ppmv NO_x in turbine outlet to SCR

Flue gas is standardized to 15% O_2 for combustion turbine

Simplifying this equation results in :

NO_x to be removed = (0.00368 X - 0.00921) lb/MMBTU NOx

Step 2 – Calculate the required NH_3 injection rate:

Since 1 mole of NH_3 reacts with one mole of NOx, the equation simply uses the relative molecular weights of NH_3 versus NOx to calculate the required NH_3 injection rate in units of lb/MMBTU.

NH_3 = ((0.00368 X - 0.00921) lb/MMBTU NOx) ($17NH_3$/46 NOx)
= (0.00136 X - 0.00340) lb/MMBTU NH_3

Example

If the measured turbine outlet NOx is equal to the manufacturers guarantee of 25 ppm, then the required NH3 injection rates is

NH_3 = ((0.00136 * 25) – 0.00340) = 0.03060 lb/MMBTU

Step 3 –Calculate the ammonia usage and verify compliance with the required NH_3 injection rate:

When the source and type of ammonia is determined (i.e., anhydrous versus aqueous solution at some specified concentration level), the following equation will be used to verify compliance with the required ammonia injection rate:

NH3 injected (lb) = gallons of NH3 solution used (gal) * density of liquid (lb/gal) *
equivalent concentration of NH3 by weight (lb NH3/lb solution)

Step 4 – Compliance Averaging Interval

The daily average (i.e., 24-hour block average) turbine outlet NO_x concentration during periods of normal operation will be measured and reported. The daily ammonia consumption during the same time periods of normal operations will also be measured and reported. The above equations will be used to demonstrate compliance with the required ammonia injection rate on a daily basis.